



July 30, 2024

Kelsey Bicknell
Environmental Manager
ABCWUA
Albuquerque, New Mexico

kbicknell@abcwua.org

RE: Results of Second Quarter 2024 Water Authority Data Gap Well Monitoring

Dear Kelsey:

John Shomaker & Associates, Inc. (JSAI) was contracted by the Albuquerque Bernalillo County Water Utility Authority (Water Authority) to assist with Data Gap Well Monitoring at well WUABFFMW-01 for four quarters beginning with the 3rd Quarter (Q3) 2023 event. The results herein are for the sampling event conducted during the 2nd Quarter (Q2) 2024. The sampling event began on June 7, 2024 when the passive sampling devices were deployed. The sampling event concluded on June 27, 2024 when the passive sampling devices were retrieved and the passive samples collected and active sampling took place.

On June 7, 2024, JSAI removed the pressure transducer, measured depth to water, and then deployed 4 dual membrane passive diffusion bags (DMPDB) and one passive diffusion bag (PDB) in WUABFFMW-01. The passive sampling devices were retrieved and samples were collected for laboratory analysis on June 27, 2024, once the passive sampling devices had been deployed in the well for at least three weeks, per manufacturer's recommendations. Following retrieval of the passive sampling devices, the Water Authority-owned Bennett sample pump was deployed for active sampling. The well was pumped at a rate of about 0.75 gpm until three well volumes had been purged. Samples were then collected for laboratory analysis for the analytes and methods presented in Table 1. Deployed depths of the passive sampling devices and the setting of the Bennett sample pump are presented in Table 2. Laboratory analytical results, chains-of-custody, and field documents including purge logs are attached.

Samples were delivered to Eurofins Albuquerque (formerly Hall Environmental Analytical Laboratory) and shipped overnight to Eurofins Environment Testing (Eurofins) in Denver, CO for analytical analyses. Table 3 is a summary of analytes that were detected during the Q2 2024 sampling. None of the detected analytes were reported above the New Mexico Environmental Department Drinking Water Bureau (NMED-DWB) standards aside from manganese. Manganese falls under the secondary drinking water standards, which are non-enforceable standards related to aesthetics.

Bis(2-ethylhexyl) phthalate was detected only in the equip rinsate. According to Eurofins, the level in the method blank is consistent with common lab contamination and it is implied and likely that the results are lab contamination.

Compared to the sampling event in the Q1 2024 sampling event, Bis(2-ethylhexyl) phthalate concentrations in WUABFFMW-01 BP and WUABFFMW-01 PDB, continued to stay below the laboratory detection limits in the Q2 2024 sampling event. The other analytes remained under laboratory detection limit, in the Q2 2024 sampling event.

Table 1. Analytes for samples at WUABFFMW-01, deployed June 7, 2024, retrieved June 27, 2024, Albuquerque, Bernalillo County, New Mexico

analyte suite	method of analysis
anions (Cl, Br, SO ₄ , NO ₃ , NO ₂)	EPA E300.0, E353.2
ethylene dibromide (EDB)	EPA 8011
volatile organic compounds (VOCs)	EPA 8260
semi-volatile organic compounds (SVOCs)	EPA 8270
total metals (Ca, Mg, Na, K, As, Pb)	EPA 6010C/6020A
dissolved metals (Fe, Mg)	EPA 6010C/6020A
alkalinity	EPA SM2320B

Table 2. Sample collection depths at WUABFFMW-01, deployed June 7, 2024 retrieved June 27, 2024, Albuquerque, Bernalillo County, New Mexico

sample type	equipment	sample collection depth ft bgl
passive	DMPDB	574*
passive	DMPDB	577*
passive	DMPDB	580*
passive	DMPDB	583*
passive	PDB	586*
active	Bennett pump	580**

*passive samples

**pump intake

Prior to deploying and post-sampling, the Bennett pump was decontaminated by pumping 5 gallons of a distilled water and Liquinox mix, distilled water, and lab-grade deionized water through the pump and tubing. After final field decontamination, post-purging, and sampling of the well, a sample final rinse sample (Equip Rinsate) was collected and submitted for laboratory analysis. All decontamination water and industrial derived waste (IDW) water produced during purging was collected in a container provided by Advanced Environmental Solutions, Inc. (AES) and delivered to their facility for disposal. The disposal manifest is attached.

Table 3. Analytes above the detection limit for samples at WUABFFMW-01, deployed June 7, 2024, retrieved June 27, 2024, Albuquerque, Bernalillo County, New Mexico

sample ID		WUABFFMW-01 PDB	WUABFFMW-01 BP	equip rinsate	method	NMED/DWB standard
Analyte	units					
Bis(2-ethylhexyl) phthalate	µg/L	nd	nd	16	8270E	6
Benzaldehyde	µg/L	nd	nd	nd	8270E	no standard
Di-n-butyl phthalate	µg/L	nd	nd	nd	8270E	20
Alkalinity	mg/L	110	110	110	SM 2320B	no standard
sulfate	mg/L	26	26	26	300.0	250 ^a
chloride	mg/L	7.5	8.1	8.1	300.0	250 ^a
nitrate-N	mg/L	nd ^b	0.078 ^b	nd ^b	353.2	10
calcium	mg/L	34	35	0.8	6010D	no standard
magnesium	mg/L	4.7	4.8	4.5	6010D	no standard
manganese	mg/L	0.05	0.13	0.094	6010D	0.05 ^a
potassium	mg/L	2.8 ^b	2.9 ^b	nd	6010D	no standard
sodium	mg/L	25	26	0.25	6010D	no standard
total arsenic	µg/L	1.3 ^b	0.76 ^b	2.0 ^b	6010D	10
iron	mg/L	0.012 ^b	0.009 ^b	0.034 ^b	6010D	0.30 ^a

^a secondary drinking water standard (non-enforceable, aesthetic guideline)

nd – not detected

^b estimated: the analyte was positively identified; the quantitation is an estimation

µg/L - micrograms per liter

bold indicates concentration exceeds NMED/DWB standard

mg/L - milligrams per liter

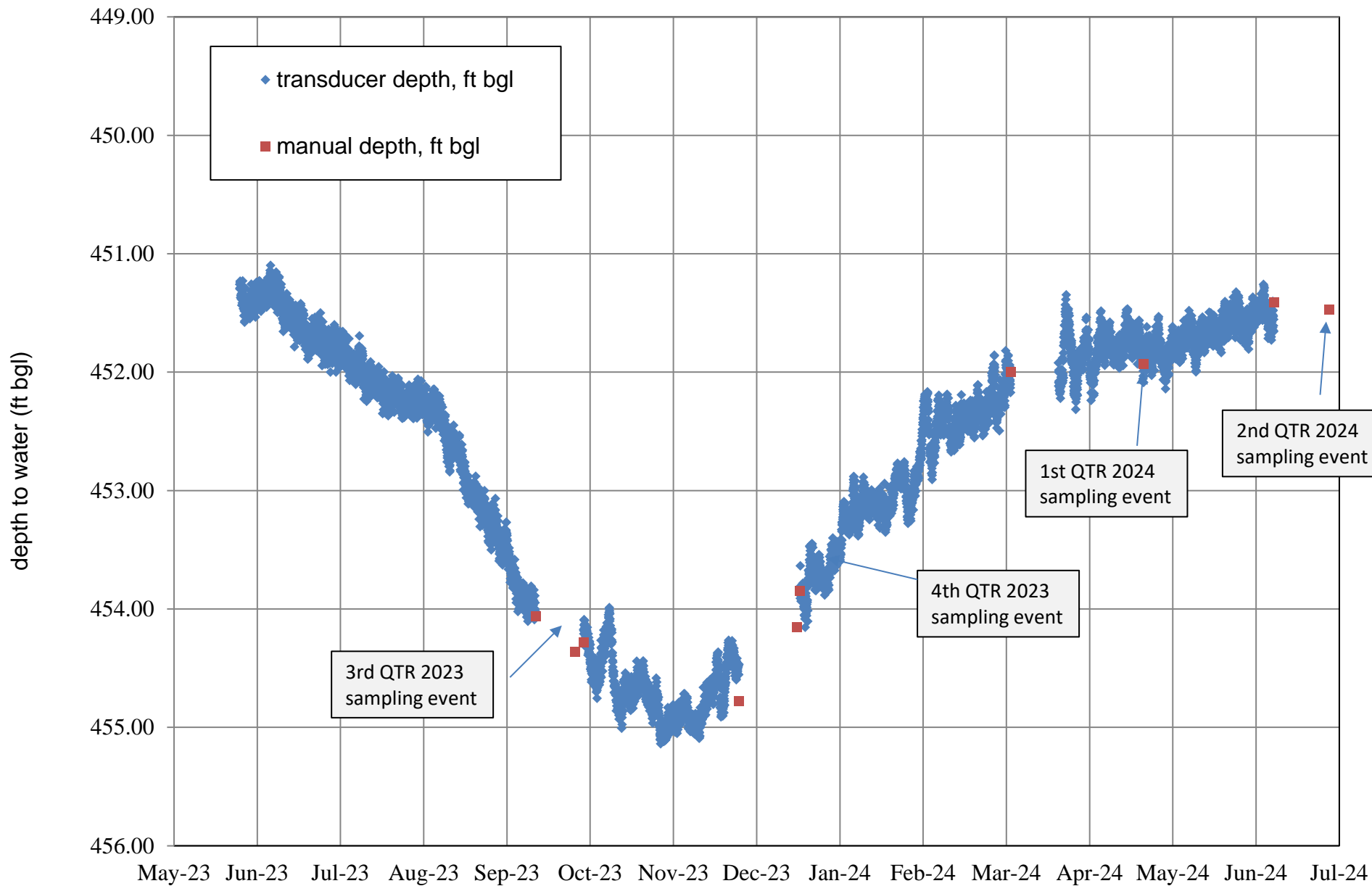
Sincerely,

JOHN SHOMAKER & ASSOCIATES, INC.



Steven T. Finch, Jr., CPG,
Principal Hydrogeologist-Geochemist

Enc: Figure 1. Hydrograph for WUABFFMW-01
Field documents
Disposal manifest
Laboratory analytical results & data, via Dropbox



Hydrograph for WUABFFMW-01



DAILY FIELD LOG

DATE: June 7, 2024

ACTIVITY: Deploy PDBs

CLIENT: ARC WUA

GEOLOGIST: ZBC/CPC

PROJECT: Data Gap

10:03 - ZBC/CPC onsite. Setting up to deploy PDBs.

- Rowan (ARC WUA) onsite.

10:18 Pulled tx. Getting WL - 45 1.01 ft bmp, sampler was disconnected.

10:31 ZBC offsite to get gloves.

10:45 ZBC onsite w/ gloves.

10:50 Tying PDBs to line/adding water.

11:28 PDBs installed. (4 clear, 1 black @ bottom)

11:32 Rowan offsite

11:35 CPC/ZBC offsite.



DAILY FIELD LOG

DATE: June 27, 2024

ACTIVITY: Sampling PDBs, pumping

CLIENT: ABCWVA

GEOLOGIST: CPC/zbc

PROJECT: DataGap

8:35 CPC onsite, Rowan (Water Authority) 1 from EA, 1 from AFB onsite.

Setting up for PDB sampling.

8:50 zbc onsite w/ ice.

8:55 Opening well vault.

9:30 Begin collecting samples

9:32 EA collecting samples from 3rd PDB bag down so they don't run out of water.

9:53 JSAI finishes collecting samples, all on-ice

10:03 Talk WL: 451.07 ft bmp

10:30 Decontaminating pump - 5gal liquor + distilled water, 5gal tap water, 5gal DI water.

10:59 Pump deployed. All except CPC/zbc onsite.

11:10 Start pumping. Bucket tall, (5gal): ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~

11:50 zbc onsite for water

12:30 zbc onsite

14:59 Samples taken. No one else on site yet. Will keep pumping until they arrive.

15:10 Rowan (WVA) 1 from EA, 1 from AFB onsite.

~15:03 EA collecting samples.

15:20 Total gallons pumped: ~180

15:55 Pump out. Purging water to add 1 sample onsite

16:05 Sample B onsite.

16:12 WL: 450.92' bmp.

16:39 Tx deployed, well vault covered, decon pump. 17:05 CPC/zbc onsite



PASSIVE DIFFUSION WATER SAMPLING DATA SHEET

Well Location ID:

DEPLOYMENT RECORD

Sample ID	WUABFF MW-01		
Deployment Team	CPC/ZBC		
Date/Time Deployed	Date: MM/DD/YYYY	Time:	
	6-7-2024	11:28	
Water Level Meter	Heron Dipper T-2		

Well Stats (feet below top of casing [ft btoc])	
Well Total Depth ¹	597
Top of Screen	572
Bottom of Screen	592
Depth to Water	454.38
Notes	

Sampler Number	Top of Sampler Depth (ft btoc)
1*	574
2*	577
3*	580
4*	583
5**	586

¹Total Depth is based on construction data, not measured

*Dual Membrane Bag; ** Passive Diffusive Bag


Signed

6-7-2024
Date

SAMPLING RECORD

Sample ID	WUABFF MW-01		
Sampling Team	CPC/ZBC		
Date/Time Sampled	Date: MM/DD/YYYY	Time:	
	06/27/24	9:53	
Water Level Meter	Heron Dipper T-2		
Water Quality Meter	Ysi ORP/DO		

Water Quality Readings

Time	Temp (C)	pH	SP. COND. (mS/cm)	ORP (mV)	TURB. (NTU)*	Comments (color/odor)
						Not enough water in PDBs for field WQ measurements



PASSIVE DIFFUSION WATER SAMPLING DATA SHEET

Groundwater Analyses

Analytes/Method	1	2	3	4	5	Notes
VOCs EPA Method 8260.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SVOCs via EPA Method 8270.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Total Metals (As, Pb, Ca, Mg, K, Na) via EPA Method 6010/6020.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dissolved Metals (Fe, Mn) via EPA 6010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Anions (Cl, Br, SO4) via EPA Method E300.0.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Nitrate/Nitrite nitrogen via EPA 353.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EDB via EPA Method 8011.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Alkalinity via EPA Method SM2320B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	


Signed

8/27/24
Date



PROJECT NAME: Data Gap WELL NO.: Data Gap
 PROJECT NO.: _____ DATE: 6-27-24 FIELD CREW: ZBC/CPC

WATER LEVEL, WATER COLUMN HEIGHT, PUMP DETAILS

TIME	DEPTH TO BOTTOM OF WELL (ft btoc)	DEPTH TO WATER (DTW) (ft btoc)	Water Column Height (DTB-DTW) (ft)	PUMP TYPE	PUMP DEPTH (ft btoc)
10:03	597	451.07	145.93	Barnet	580

ft btoc: feet below top of casing from designated measuring point

PURGE VOLUME

Well Casing Diameter (inches)	Volume/Linear Foot (see conversion table below)	1 Well Volume (gal)	2 Well Volumes (gal)	3 Well Volumes (gal)
3	0.38	55.45	110.91	166.36

VOLUME/LINEAR FOOT (gal/ft) (Use well casing ID)

1" = 0.04	1.5" = 0.09	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.5	8" = 2.6	10" = 4.1
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1 well casing volume = Volume/Linear Foot x Water Column Height

METHOD OF PURGING: Pumping
 METHOD OF SAMPLING: Grab/PDB

WATER LEVEL/WATER QUALITY INSTRUMENTS USED

INSTRUMENT	SERIAL NO.	TIME CALIBRATION PERFORMED	TECH	COMMENTS
Heron Dipper T-2	120892	-	-	-
Oakton PC-450	2881235	6-27-24	CPC	-

WATER QUALITY READINGS DURING PURGING

TIME	TEMP (°C)	pH	SP. COND. (µS/cm)	ORP (mV)	TURB. (NTU)*	Water Level (ft bTOC)	Flow Rate (gal/min)	Total Volume Purged (gal)	Comments (color/odor)
11:10	-	-	Start Pump			451.07	0.75	0	DO mg/L
11:25	21.6	8.01	344.0	-77	1.08	451.24	0.67	10	3.18, clear, none
11:40	20.9	7.80	344.4	-68	0.75	451.31	0.53	18	2.53, clear, none
11:55	20.9	7.86	331.0	-70	1.02	451.32	0.73	29	2.55, clear, none
12:10	21.3	7.81	331.1	-76	0.68	451.29	0.67	39	2.53, clear, none
12:25	21.4	7.88	323.6	-101	0.65	451.30	0.67	49	2.22, clear, none
12:40	21.1	7.90	336.0	-96	0.61	451.28	0.73	60	2.39, clear, none
12:55	21.6	7.93	344.0	-92	0.62	451.28	0.73	71	2.04, clear, none
13:10	21.5	7.91	331.6	-86	0.59	451.29	0.73	82	2.53, clear, none
13:25	21.3	7.88	344.5	-88	0.68	451.28	0.80	94	2.36, clear, none
13:40	21.0	7.89	332.9	-85	0.56	451.26	0.80	106	2.47, clear, none
13:55	20.7	7.88	327.1	-99	0.54	451.26	0.73	117	2.38, clear, none
14:10	21.0	7.89	335.5	-94	0.46	451.25	0.80	129	2.29, clear, none
14:25	21.4	7.92	328.6	-95	0.53	451.25	0.73	140	2.18, clear, none



WATER QUALITY READINGS DURING PURGING (continued)

TIME	TEMP (°C)	pH	SP. COND. (µS/cm)	ORP (mV)	TURB. (NTU)*	Water Level (ft bTOC)	Flow Rate (gal/min)	Total Volume Purged (gal)	Comments (color/odor)	
14:40	21.0	7.93	319.0	-91	0.42	451.25	0.80	152	DO μ /L 2.27	
14:55	21.4	7.90	330.2	-92	0.43	451.25	0.73	163	2.41	
14:59		Samples Taken.							167	

*If measured.
Stabilization = Temp \pm 1°C; pH \pm 0.2 units; Sp. Cond. \pm 10%; Turb. \pm 10%

GROUNDWATER SAMPLING DATA

GROUNDWATER SAMPLE ID: WUARBFW-01 DUPLICATE SAMPLE ID: _____

Time	Bottle Type	Analytical Method	# of Bottles	Volume	Preservative
14:59	Plastic	Dissolved metals	1	250 mL	none
14:59	Plastic	Total metals	1	250 mL	nitric acid
14:59	Amber	Nitrate/nitrite	1	500 mL	sulfuric acid
14:59	Plastic	Alkalinity + anions	1	250 mL	none
14:59	Amber	SVOCs	2	250 mL	none
14:59	VOA	VOCs	3	40 mL	HCl
14:59	VOA	EDB	3	40 mL	HCl
TOTAL:			12		

Sampler: Colton Cravens
 (Printed Name) _____ (Signature)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number VSQG	2. Page 1 of 1	3. Emergency Response Phone 800-861-1700	4. Waste Tracking Number 14292-4	
5. Generator's Name and Mailing Address Albuquerque Bernalillo County water utility Authority 1 Civic Plaza NW Albuquerque, NM 87103		Generator's Site Address (if different than mailing address) Albuquerque Bernalillo County water utility Authority Kathryn and Indiana SE Albuquerque, NM			
Generator's Phone: 505-289-3009					
6. Transporter 1 Company Name John Shomaker + Associates			U.S. EPA ID Number		
7. Transporter 2 Company Name			U.S. EPA ID Number		
8. Designated Facility Name and Site Address Advanced Environmental Solutions 2318 Rollan Dr. Belen, NM 87002			U.S. EPA ID Number		
Facility's Phone: 505-861-1700			NMR000006502		
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
		No.	Type		
1. Non-RCRA Regulated, Non-DOT hazardous IDW water		01	TP	200	G
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information 9.1) Profile #: AES1186 1x275g Poly TOTE NON-HAZ 9.1) A10746					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.					
Generator's/Offor's Printed/Typed Name Zechery Chavez			Signature <i>[Signature]</i>		Month Day Year 06 28 24
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Zechery Chavez			Signature <i>[Signature]</i>		Month Day Year 06 28 24
Transporter 2 Printed/Typed Name			Signature		Month Day Year
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
17b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number					
17c. Signature of Alternate Facility (or Generator) _____ Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name JOHN J-SANCHEZ			Signature <i>[Signature]</i>		Month Day Year 6 28 24

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number VSQG	2. Page 1 of 1	3. Emergency Response Phone 800-861-1700	4. Waste Tracking Number 14292-4	
5. Generator's Name and Mailing Address Albuquerque Bernalillo County water utility Authority 1 Civic Plaza NW Albuquerque, NM 87103			Generator's Site Address (if different than mailing address) Albuquerque Bernalillo County water utility Authority Kathryn and Indiana SE Albuquerque, NM			
Generator's Phone: 505-289-3009						
6. Transporter 1 Company Name John Shomaker + Associates			U.S. EPA ID Number			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address Advanced Environmental Solutions 2318 Rollan Dr. Belen, NM 87002			U.S. EPA ID Number			
Facility's Phone: 505-861-1700			NMR000006502			
GENERATOR	9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
			No.	Type		
	1. Non-RCRA Regulated, Non-DOT hazardous IDW water		01	TP	200	G
	2.					
	3.					
4.						
13. Special Handling Instructions and Additional Information 9.1) Profile # AES1186 1x275g Poly TOTE NON-HAZ 9.1) A10746						
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste. Job #: J14292						
Generator's/Offor's Printed/Typed Name Zechery Chavez			Signature <i>[Signature]</i>		Month Day Year 06 28 24	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Zechery Chavez			Signature <i>[Signature]</i>		Month Day Year 06 28 24	
Transporter 2 Printed/Typed Name			Signature		Month Day Year	
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
17b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number						
17c. Signature of Alternate Facility (or Generator) _____ Month Day Year						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name JOHN J-SANCHEZ			Signature <i>[Signature]</i>		Month Day Year 6 28 24	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Steve Finch
John Shomaker and Associates Inc
2611 Broadbent Pkwy Ne
Albuquerque NM 87107

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JOB DESCRIPTION

Water Authority Data Gap Well Monitoring

JOB NUMBER

280-193472-1

Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

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Authorized for release by
Natalie B Stone, Project Manager
Natalie.Stone@et.eurofinsus.com

Table of Contents

Cover Title Page	1
Data Summaries	7
Definitions	7
Case Narrative	9
Detection Summary	11
Client Sample Results	12
Default Detection Limits	26
Surrogate Summary	30
QC Sample Results	31
QC Association	45
Chronicle	48
Certification Summary	50
Method Summary	51
Sample Summary	52
Manual Integration Summary	53
Reagent Traceability	73
COAs	121
Organic Sample Data	499
GC/MS VOA	499
Method 8260D DOD	499
Method 8260D DOD QC Summary	500
Method 8260D DOD Sample Data	510
Standards Data	548
Method 8260D DOD ICAL Data	548
Method 8260D DOD CCAL Data	709
Raw QC Data	730

Table of Contents

Method 8260D DOD Tune Data	730
Method 8260D DOD Blank Data	743
Method 8260D DOD LCS/LCSD Data	752
Method 8260D DOD Run Logs	768
Method 8260D DOD Prep Data	771
GC/MS Semi VOA	776
8270E_DOD5	776
8270E_DOD5 QC Summary	777
8270E_DOD5 Sample Data	787
Standards Data	834
8270E_DOD5 ICAL Data	834
8270E_DOD5 CCAL Data	1087
Raw QC Data	1119
8270E_DOD5 Tune Data	1119
8270E_DOD5 Blank Data	1164
8270E_DOD5 LCS/LCSD Data	1180
8270E_DOD5 Run Logs	1190
8270E_DOD5 Prep Data	1194
GC Semi VOA	1199
Method 8011	1199
Method 8011 QC Summary	1200
Method 8011 Sample Data	1215
Standards Data	1227
Method 8011 ICAL Data	1227
Method 8011 CCAL Data	1275
Raw QC Data	1329

Table of Contents

Method 8011 Blank Data	1329
Method 8011 LCS/LCSD Data	1337
Method 8011 Run Logs	1353
Method 8011 Prep Data	1356
Inorganic Sample Data	1359
Metals Data	1359
Met Cover Page	1360
Met Sample Data	1361
Met QC Data	1367
Met ICV/CCV	1367
Met CRQL	1377
Met Blanks	1379
Met ICSA/ICSAB	1388
Met LCS/LCSD	1396
Met MDL	1401
Met IECF	1407
Met Linear Ranges	1419
Met Preparation Log	1421
Met Analysis Run Log	1424
Met Internal Standards	1439
Met Prep Data	1447
Met Raw Data	1451
General Chemistry Data	3122
Gen Chem Cover Page	3123
Gen Chem Sample Data	3124
Gen Chem QC Data	3127

Table of Contents

Gen Chem ICV/CCV	3127
Gen Chem Blanks	3131
Gen Chem LCS/LCSD	3132
Gen Chem Calibration	3135
Gen Chem MDL	3138
Gen Chem Analysis Run Log	3144
Gen Chem Prep Data	3152
Gen Chem Raw Data	3159
Shipping and Receiving Documents	3259
Client Chain of Custody	3260
Sample Receipt Checklist	3261

Definitions/Glossary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Definitions/Glossary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

**Job Narrative
280-193472-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Receipt

The samples were received on 6/29/2024 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Receipt Exceptions

One VOA container for the following sample was received broken: WUABAF MW-01 (PDB) (280-193472-1).

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) all request MS/MSD on the chain of custody; however, no additional volume was supplied so MS/MSD will not be reported for these samples.

Two VOA containers for the following sample was received broken: WUABAF MW-01 (BP) (280-193472-2).

Method 8260D - Volatile Organic Compounds (GC/MS)

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2), WUABAF MW-01 (Rinsate) (280-193472-3) and Trip Blank (280-193472-4) were analyzed for Volatile Organic Compounds (GC/MS). The samples were analyzed on 7/10/2024 and 7/11/2024.

The method blank for analytical batch 280-659975 contained 3-Chloro-1-propene above the method detection limit (0.46 ug/L) at 0.831 ug/L. This target analyte concentration was less than half the reporting limit (1/2RL) in the method blank of 2 ug/L; therefore, re-analysis of samples was not performed. The associated samples were non-detect for 3-Chloro-1-propene.

The following compounds were outside control limits (20%) in the continuing calibration verification (CCV) associated with batch 280-659975: Bromomethane and Iodomethane at -29.6% and -22.2%, respectively. These compounds are considered poor performers and the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries are within limits; therefore, the data have been reported. The associated samples were non-detect for the affected analytes.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 280-659975.

Method 8270E - Semivolatile Organic Compounds (GC/MS)

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Semivolatile Organic Compounds (GC/MS). The samples were prepared on 7/4/2024 and analyzed on 7/8/2024.

The continuing calibration verification (CCV) associated with batch 280-659523 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene and Pentachlorophenol. A reporting limit (RL) standard was analyzed,

and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

The continuing calibration verification (CCV) associated with batch 280-659523 recovered outside acceptance criteria, low biased, for Benzaldehyde. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

The laboratory control sample (LCS) for preparation batch 280-659338 and analytical batch 280-659523 recovered outside control limits for the following analytes: Benzo[g,h,i]perylene, Butyl benzyl phthalate, Dibenz(a,h)anthracene and Bis(2-ethylhexyl) phthalate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The following samples were re-extracted outside of hold time due to low recoveries in the lab control sample (LCS) associated with preparation batch 280-659338 and analytical batch 280-659523: WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3). Both sets of data have been reported.

Method 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for EDB, DBCP, and 1,2,3-TCP (GC). The samples were prepared and analyzed on 7/1/2024 and 7/2/2024.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-658886. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-659019. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 6010D - Metals (ICP)

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Metals (ICP). The samples were prepared on 7/9/2024 and analyzed on 7/12/2024.

Method 6010D - Metals (ICP) - Dissolved

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Metals (ICP) - Dissolved. The samples were prepared on 7/3/2024 and analyzed on 7/5/2024.

Method 6020B - Metals (ICP/MS)

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Metals (ICP/MS). The samples were prepared on 7/9/2024 and analyzed on 7/10/2024.

Method SM 2320B - Alkalinity

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Alkalinity. The samples were analyzed on 7/2/2024.

Method 300.0 - Anions, Ion Chromatography

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Anions, Ion Chromatography. The samples were analyzed on 7/2/2024.

Method 353.2 - Nitrogen, Nitrate-Nitrite

Samples WUABAF MW-01 (PDB) (280-193472-1), WUABAF MW-01 (BP) (280-193472-2) and WUABAF MW-01 (Rinsate) (280-193472-3) were analyzed for Nitrogen, Nitrate-Nitrite. The samples were analyzed on 7/8/2024.

Detection Summary

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Calcium	34000		200	64	24	ug/L	1		6010D	Total/NA
Magnesium	4700		200	15	4.2	ug/L	1		6010D	Total/NA
Potassium	2800	J	3000	940	240	ug/L	1		6010D	Total/NA
Sodium	25000		1000	320	97	ug/L	1		6010D	Total/NA
Iron	12	J	100	34	9.1	ug/L	1		6010D	Dissolved
Manganese	50		10	1.8	0.45	ug/L	1		6010D	Dissolved
Arsenic	1.3	J	5.0	2.0	0.50	ug/L	1		6020B	Total/NA
Chloride	7.5	M	3.0	2.5	1.0	mg/L	1		300.0	Total/NA
Sulfate	26		5.0	2.5	1.0	mg/L	1		300.0	Total/NA
Alkalinity	110		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Calcium	35000		200	64	24	ug/L	1		6010D	Total/NA
Magnesium	4800		200	15	4.2	ug/L	1		6010D	Total/NA
Potassium	2900	J	3000	940	240	ug/L	1		6010D	Total/NA
Sodium	26000		1000	320	97	ug/L	1		6010D	Total/NA
Iron	9.2	J	100	34	9.1	ug/L	1		6010D	Dissolved
Manganese	130		10	1.8	0.45	ug/L	1		6010D	Dissolved
Arsenic	0.76	J	5.0	2.0	0.50	ug/L	1		6020B	Total/NA
Chloride	8.1	M	3.0	2.5	1.0	mg/L	1		300.0	Total/NA
Sulfate	26		5.0	2.5	1.0	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.078	J	0.10	0.080	0.044	mg/L	1		353.2	Total/NA
Alkalinity	110		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.85	J	2.0	0.80	0.26	ug/L	1		8260D	Total/NA
Bis(2-ethylhexyl) phthalate	16	Q	10	8.1	3.3	ug/L	1		8270E	Total/NA
Calcium	800		200	64	24	ug/L	1		6010D	Total/NA
Magnesium	100	J	200	15	4.2	ug/L	1		6010D	Total/NA
Sodium	250	J	1000	320	97	ug/L	1		6010D	Total/NA
Manganese	9.4	J	10	1.8	0.45	ug/L	1		6010D	Dissolved
Lead	0.24	J	1.0	0.70	0.23	ug/L	1		6020B	Total/NA
Chloride	8.1	M	3.0	2.5	1.0	mg/L	1		300.0	Total/NA
Sulfate	26		5.0	2.5	1.0	mg/L	1		300.0	Total/NA
Alkalinity	110		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 280-193472-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 02:52	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		07/11/24 02:52	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		07/11/24 02:52	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 02:52	1
N-Propylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 02:52	1
n-Butylbenzene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 02:52	1
4-Chlorotoluene	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 02:52	1
1,4-Dichlorobenzene	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 02:52	1
Ethylene Dibromide	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 02:52	1
3-Chloro-1-propene	1.0	U	2.0	1.0	0.46	ug/L		07/11/24 02:52	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 02:52	1
Acrylonitrile	8.0	U	20	8.0	1.7	ug/L		07/11/24 02:52	1
Vinyl acetate	2.0	U	3.0	2.0	0.36	ug/L		07/11/24 02:52	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		07/11/24 02:52	1
1,3,5-Trimethylbenzene	0.50	U	1.0	0.50	0.12	ug/L		07/11/24 02:52	1
Bromobenzene	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 02:52	1
Methylcyclohexane	0.40	U	1.0	0.40	0.31	ug/L		07/11/24 02:52	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 02:52	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		07/11/24 02:52	1
Tetrahydrofuran	6.4	U	7.0	6.4	0.84	ug/L		07/11/24 02:52	1
Hexane	0.80	U	2.0	0.80	0.16	ug/L		07/11/24 02:52	1
trans-1,4-Dichloro-2-butene	1.6	U	3.0	1.6	0.51	ug/L		07/11/24 02:52	1
Cyclohexane	0.80	U	1.0	0.80	0.44	ug/L		07/11/24 02:52	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.58	ug/L		07/11/24 02:52	1
Chlorodibromomethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 02:52	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 02:52	1
sec-Butylbenzene	0.80	U	1.0	0.80	0.20	ug/L		07/11/24 02:52	1
1,3-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 02:52	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 02:52	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	0.37	ug/L		07/11/24 02:52	1
Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25	ug/L		07/11/24 02:52	1
m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.36	ug/L		07/11/24 02:52	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.33	ug/L		07/11/24 02:52	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		07/11/24 02:52	1
1,1-Dichloropropene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 02:52	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		07/11/24 02:52	1
2,2-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 02:52	1
Ethyl ether	0.80	U	2.0	0.80	0.35	ug/L		07/11/24 02:52	1
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.16	ug/L		07/11/24 02:52	1
Acetone	8.0	U	15	8.0	6.6	ug/L		07/11/24 02:52	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		07/11/24 02:52	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		07/11/24 02:52	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 02:52	1
Bromomethane	4.0	U Q	5.0	4.0	2.4	ug/L		07/11/24 02:52	1
Chloromethane	1.0	U Q	2.0	1.0	0.23	ug/L		07/11/24 02:52	1
Iodomethane	4.0	U Q	5.0	4.0	2.6	ug/L		07/11/24 02:52	1
Dibromomethane	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 02:52	1
Chlorobromomethane	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 02:52	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		07/11/24 02:52	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		07/11/24 02:52	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		07/11/24 02:52	1
Carbon disulfide	0.80	U M	2.0	0.80	0.26	ug/L		07/11/24 02:52	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		07/11/24 02:52	1
Dichlorobromomethane	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 02:52	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		07/11/24 02:52	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 02:52	1
Trichlorofluoromethane	0.80	U	2.0	0.80	0.20	ug/L		07/11/24 02:52	1
Dichlorodifluoromethane	1.0	U Q	2.0	1.0	0.30	ug/L		07/11/24 02:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	U	3.0	1.8	0.73	ug/L		07/11/24 02:52	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		07/11/24 02:52	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		07/11/24 02:52	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		07/11/24 02:52	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		07/11/24 02:52	1
Methyl acetate	4.0	U	5.0	4.0	1.6	ug/L		07/11/24 02:52	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 02:52	1
1,2,3-Trichlorobenzene	2.5	U	4.0	2.5	1.2	ug/L		07/11/24 02:52	1
Hexachlorobutadiene	1.8	U	2.0	1.8	0.53	ug/L		07/11/24 02:52	1
Naphthalene	2.0	U	3.0	2.0	0.99	ug/L		07/11/24 02:52	1
o-Xylene	0.40	U	1.0	0.40	0.11	ug/L		07/11/24 02:52	1
2-Chlorotoluene	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 02:52	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	0.14	ug/L		07/11/24 02:52	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15	ug/L		07/11/24 02:52	1
1,2-Dibromo-3-Chloropropane	4.0	U	5.0	4.0	0.42	ug/L		07/11/24 02:52	1
1,2,3-Trichloropropane	1.8	U	2.5	1.8	0.28	ug/L		07/11/24 02:52	1
Ethyl methacrylate	2.0	U	3.0	2.0	0.19	ug/L		07/11/24 02:52	1
tert-Butylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 02:52	1
Isopropylbenzene	0.50	U	1.0	0.50	0.16	ug/L		07/11/24 02:52	1
4-Isopropyltoluene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 02:52	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 02:52	1
1,3-Dichloropropene, Total	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 02:52	1
Trihalomethanes, Total	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 02:52	1
Total BTEX	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		81 - 118		07/11/24 02:52	1
Dibromofluoromethane (Surr)	104		80 - 119		07/11/24 02:52	1
Toluene-d8 (Surr)	98		89 - 112		07/11/24 02:52	1
4-Bromofluorobenzene (Surr)	99		85 - 114		07/11/24 02:52	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1'-Biphenyl	8.3	U	10	8.3	1.3	ug/L		07/08/24 11:17	1
2,4-Dichlorophenol	8.3	U	10	8.3	3.1	ug/L		07/08/24 11:17	1
2,4-Dimethylphenol	8.3	U	10	8.3	1.4	ug/L		07/08/24 11:17	1
2,4-Dinitrophenol	21	U	31	21	13	ug/L		07/08/24 11:17	1
2,4-Dinitrotoluene	8.3	U	10	8.3	1.5	ug/L		07/08/24 11:17	1
2,4,6-Trichlorophenol	8.3	U	10	8.3	2.4	ug/L		07/08/24 11:17	1
2,4,5-Trichlorophenol	8.3	U	10	8.3	2.7	ug/L		07/08/24 11:17	1
2,2'-oxybis[1-chloropropane]	8.3	U	10	8.3	1.4	ug/L		07/08/24 11:17	1

Eurofins Denver

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Di-n-butyl phthalate	3.3	U	4.2	3.3	2.2	ug/L		07/08/24 11:17	1
Di-n-octyl phthalate	8.3	U	10	8.3	3.8	ug/L		07/08/24 11:17	1
Benzo[a]anthracene	3.3	U	4.2	3.3	1.0	ug/L		07/08/24 11:17	1
Benzo[a]pyrene	3.3	U	4.2	3.3	0.52	ug/L		07/08/24 11:17	1
Benzo[b]fluoranthene	3.3	U	4.2	3.3	2.2	ug/L		07/08/24 11:17	1
Benzo[g,h,i]perylene	3.3	U Q	4.2	3.3	3.0	ug/L		07/08/24 11:17	1
Benzo[k]fluoranthene	3.3	U	4.2	3.3	1.1	ug/L		07/08/24 11:17	1
Acenaphthene	3.3	U	4.2	3.3	1.0	ug/L		07/08/24 11:17	1
Acenaphthylene	3.3	U	4.2	3.3	0.78	ug/L		07/08/24 11:17	1
Acetophenone	8.3	U	10	8.3	2.4	ug/L		07/08/24 11:17	1
Anthracene	3.3	U	4.2	3.3	0.60	ug/L		07/08/24 11:17	1
Atrazine	3.3	U	10	3.3	0.68	ug/L		07/08/24 11:17	1
Benzaldehyde	3.3	U Q	5.2	3.3	1.2	ug/L		07/08/24 11:17	1
Butyl benzyl phthalate	3.3	U Q	4.2	3.3	1.6	ug/L		07/08/24 11:17	1
Caprolactam	10	U	16	10	5.7	ug/L		07/08/24 11:17	1
Chrysene	3.3	U	4.2	3.3	1.0	ug/L		07/08/24 11:17	1
Dibenz(a,h)anthracene	8.3	U Q	10	8.3	5.0	ug/L		07/08/24 11:17	1
Dibenzofuran	3.3	U	4.2	3.3	0.99	ug/L		07/08/24 11:17	1
Diethyl phthalate	3.3	U	4.2	3.3	1.4	ug/L		07/08/24 11:17	1
Hexachlorobenzene	8.3	U	10	8.3	2.4	ug/L		07/08/24 11:17	1
Hexachlorocyclopentadiene	50	U Q	52	50	17	ug/L		07/08/24 11:17	1
Hexachlorobutadiene	8.3	U	10	8.3	3.0	ug/L		07/08/24 11:17	1
Hexachloroethane	8.3	U	10	8.3	4.6	ug/L		07/08/24 11:17	1
Fluoranthene	3.3	U	4.2	3.3	1.1	ug/L		07/08/24 11:17	1
Fluorene	3.3	U	4.2	3.3	0.82	ug/L		07/08/24 11:17	1
Indeno[1,2,3-cd]pyrene	8.3	U	10	8.3	3.6	ug/L		07/08/24 11:17	1
Isophorone	8.3	U	10	8.3	2.1	ug/L		07/08/24 11:17	1
N-Nitrosodi-n-propylamine	8.3	U M	10	8.3	2.0	ug/L		07/08/24 11:17	1
N-Nitrosodiphenylamine	8.3	U	10	8.3	1.9	ug/L		07/08/24 11:17	1
Naphthalene	3.3	U	4.2	3.3	1.6	ug/L		07/08/24 11:17	1
Nitrobenzene	8.3	U	10	8.3	1.3	ug/L		07/08/24 11:17	1
Pentachlorophenol	50	U Q	52	50	21	ug/L		07/08/24 11:17	1
Phenanthrene	3.3	U	4.2	3.3	1.6	ug/L		07/08/24 11:17	1
Phenol	8.3	U	10	8.3	0.96	ug/L		07/08/24 11:17	1
Pyrene	8.3	U	10	8.3	2.5	ug/L		07/08/24 11:17	1
2-Chloronaphthalene	3.3	U	4.2	3.3	1.3	ug/L		07/08/24 11:17	1
2-Chlorophenol	8.3	U	10	8.3	2.7	ug/L		07/08/24 11:17	1
2-Methylnaphthalene	3.3	U	4.2	3.3	1.3	ug/L		07/08/24 11:17	1
2-Methylphenol	8.3	U	10	8.3	0.80	ug/L		07/08/24 11:17	1
2-Nitroaniline	3.3	U	10	3.3	2.7	ug/L		07/08/24 11:17	1
2-Nitrophenol	8.3	U	10	8.3	3.6	ug/L		07/08/24 11:17	1
3,3'-Dichlorobenzidine	31	U	52	31	3.5	ug/L		07/08/24 11:17	1
3-Nitroaniline	8.3	U	10	8.3	3.5	ug/L		07/08/24 11:17	1
4,6-Dinitro-2-methylphenol	31	U	52	31	4.2	ug/L		07/08/24 11:17	1
4-Bromophenyl phenyl ether	8.3	U	10	8.3	1.1	ug/L		07/08/24 11:17	1
4-Nitroaniline	8.3	U	10	8.3	2.7	ug/L		07/08/24 11:17	1
4-Nitrophenol	13	U	26	13	9.4	ug/L		07/08/24 11:17	1
Bis(2-chloroethoxy)methane	8.3	U	10	8.3	2.5	ug/L		07/08/24 11:17	1
Bis(2-chloroethyl)ether	8.3	U	10	8.3	2.1	ug/L		07/08/24 11:17	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	8.3	U Q	10	8.3	3.5	ug/L		07/08/24 11:17	1
2,6-Dinitrotoluene	8.3	U M	10	8.3	1.5	ug/L		07/08/24 11:17	1
4-Chloro-3-methylphenol	8.3	U	10	8.3	1.8	ug/L		07/08/24 11:17	1
4-Chloroaniline	13	U	21	13	6.5	ug/L		07/08/24 11:17	1
4-Chlorophenyl phenyl ether	8.3	U	10	8.3	1.3	ug/L		07/08/24 11:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	39		19 - 119	07/04/24 12:12	07/08/24 11:17	1
Phenol-d5 (Surr)	29		10 - 115	07/04/24 12:12	07/08/24 11:17	1
Nitrobenzene-d5 (Surr)	76		44 - 120	07/04/24 12:12	07/08/24 11:17	1
2-Fluorobiphenyl	55		44 - 119	07/04/24 12:12	07/08/24 11:17	1
2,4,6-Tribromophenol (Surr)	71		43 - 140	07/04/24 12:12	07/08/24 11:17	1
Terphenyl-d14 (Surr)	89		50 - 134	07/04/24 12:12	07/08/24 11:17	1

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylene Dibromide	0.014	U	0.020	0.014	0.0037	ug/L		07/02/24 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	108		70 - 130	07/02/24 08:03	07/02/24 14:46	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	34000		200	64	24	ug/L		07/12/24 14:27	1
Magnesium	4700		200	15	4.2	ug/L		07/12/24 14:27	1
Potassium	2800	J	3000	940	240	ug/L		07/12/24 14:27	1
Sodium	25000		1000	320	97	ug/L		07/12/24 14:27	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	12	J	100	34	9.1	ug/L		07/05/24 20:15	1
Manganese	50		10	1.8	0.45	ug/L		07/05/24 20:15	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.3	J	5.0	2.0	0.50	ug/L		07/10/24 11:44	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		07/10/24 11:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bromide (EPA 300.0)	0.40	U	0.50	0.40	0.23	mg/L		07/02/24 17:37	1
Chloride (EPA 300.0)	7.5	M	3.0	2.5	1.0	mg/L		07/02/24 17:37	1
Sulfate (EPA 300.0)	26		5.0	2.5	1.0	mg/L		07/02/24 17:37	1
Nitrate Nitrite as N (EPA 353.2)	0.080	U	0.10	0.080	0.044	mg/L		07/08/24 15:21	1
Alkalinity (SM 2320B)	110		10	6.4	3.1	mg/L		07/02/24 13:37	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Date Collected: 06/27/24 14:59

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 03:13	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		07/11/24 03:13	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		07/11/24 03:13	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 03:13	1
N-Propylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 03:13	1
n-Butylbenzene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 03:13	1
4-Chlorotoluene	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 03:13	1
1,4-Dichlorobenzene	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 03:13	1
Ethylene Dibromide	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 03:13	1
3-Chloro-1-propene	1.0	U	2.0	1.0	0.46	ug/L		07/11/24 03:13	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 03:13	1
Acrylonitrile	8.0	U	20	8.0	1.7	ug/L		07/11/24 03:13	1
Vinyl acetate	2.0	U	3.0	2.0	0.36	ug/L		07/11/24 03:13	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		07/11/24 03:13	1
1,3,5-Trimethylbenzene	0.50	U	1.0	0.50	0.12	ug/L		07/11/24 03:13	1
Bromobenzene	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 03:13	1
Methylcyclohexane	0.40	U	1.0	0.40	0.31	ug/L		07/11/24 03:13	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 03:13	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		07/11/24 03:13	1
Tetrahydrofuran	6.4	U	7.0	6.4	0.84	ug/L		07/11/24 03:13	1
Hexane	0.80	U	2.0	0.80	0.16	ug/L		07/11/24 03:13	1
trans-1,4-Dichloro-2-butene	1.6	U	3.0	1.6	0.51	ug/L		07/11/24 03:13	1
Cyclohexane	0.80	U	1.0	0.80	0.44	ug/L		07/11/24 03:13	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.58	ug/L		07/11/24 03:13	1
Chlorodibromomethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 03:13	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 03:13	1
sec-Butylbenzene	0.80	U	1.0	0.80	0.20	ug/L		07/11/24 03:13	1
1,3-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 03:13	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 03:13	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	0.37	ug/L		07/11/24 03:13	1
Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25	ug/L		07/11/24 03:13	1
m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.36	ug/L		07/11/24 03:13	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.33	ug/L		07/11/24 03:13	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		07/11/24 03:13	1
1,1-Dichloropropene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 03:13	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		07/11/24 03:13	1
2,2-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 03:13	1
Ethyl ether	0.80	U	2.0	0.80	0.35	ug/L		07/11/24 03:13	1
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.16	ug/L		07/11/24 03:13	1
Acetone	8.0	U	15	8.0	6.6	ug/L		07/11/24 03:13	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		07/11/24 03:13	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		07/11/24 03:13	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 03:13	1
Bromomethane	4.0	U Q	5.0	4.0	2.4	ug/L		07/11/24 03:13	1
Chloromethane	1.0	U Q	2.0	1.0	0.23	ug/L		07/11/24 03:13	1
Iodomethane	4.0	U Q	5.0	4.0	2.6	ug/L		07/11/24 03:13	1
Dibromomethane	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 03:13	1
Chlorobromomethane	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 03:13	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		07/11/24 03:13	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Date Collected: 06/27/24 14:59

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		07/11/24 03:13	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		07/11/24 03:13	1
Carbon disulfide	0.80	U	2.0	0.80	0.26	ug/L		07/11/24 03:13	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		07/11/24 03:13	1
Dichlorobromomethane	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 03:13	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		07/11/24 03:13	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 03:13	1
Trichlorofluoromethane	0.80	U	2.0	0.80	0.20	ug/L		07/11/24 03:13	1
Dichlorodifluoromethane	1.0	U Q	2.0	1.0	0.30	ug/L		07/11/24 03:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	U	3.0	1.8	0.73	ug/L		07/11/24 03:13	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		07/11/24 03:13	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		07/11/24 03:13	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		07/11/24 03:13	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		07/11/24 03:13	1
Methyl acetate	4.0	U	5.0	4.0	1.6	ug/L		07/11/24 03:13	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 03:13	1
1,2,3-Trichlorobenzene	2.5	U	4.0	2.5	1.2	ug/L		07/11/24 03:13	1
Hexachlorobutadiene	1.8	U	2.0	1.8	0.53	ug/L		07/11/24 03:13	1
Naphthalene	2.0	U	3.0	2.0	0.99	ug/L		07/11/24 03:13	1
o-Xylene	0.40	U	1.0	0.40	0.11	ug/L		07/11/24 03:13	1
2-Chlorotoluene	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 03:13	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	0.14	ug/L		07/11/24 03:13	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15	ug/L		07/11/24 03:13	1
1,2-Dibromo-3-Chloropropane	4.0	U	5.0	4.0	0.42	ug/L		07/11/24 03:13	1
1,2,3-Trichloropropane	1.8	U	2.5	1.8	0.28	ug/L		07/11/24 03:13	1
Ethyl methacrylate	2.0	U	3.0	2.0	0.19	ug/L		07/11/24 03:13	1
tert-Butylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 03:13	1
Isopropylbenzene	0.50	U	1.0	0.50	0.16	ug/L		07/11/24 03:13	1
4-Isopropyltoluene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 03:13	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 03:13	1
1,3-Dichloropropene, Total	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 03:13	1
Trihalomethanes, Total	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 03:13	1
Total BTEX	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 03:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		81 - 118		07/11/24 03:13	1
Dibromofluoromethane (Surr)	105		80 - 119		07/11/24 03:13	1
Toluene-d8 (Surr)	98		89 - 112		07/11/24 03:13	1
4-Bromofluorobenzene (Surr)	98		85 - 114		07/11/24 03:13	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1'-Biphenyl	7.8	U	9.8	7.8	1.2	ug/L		07/08/24 11:39	1
2,4-Dichlorophenol	7.8	U	9.8	7.8	2.9	ug/L		07/08/24 11:39	1
2,4-Dimethylphenol	7.8	U	9.8	7.8	1.3	ug/L		07/08/24 11:39	1
2,4-Dinitrophenol	20	U	29	20	13	ug/L		07/08/24 11:39	1
2,4-Dinitrotoluene	7.8	U	9.8	7.8	1.4	ug/L		07/08/24 11:39	1
2,4,6-Trichlorophenol	7.8	U	9.8	7.8	2.3	ug/L		07/08/24 11:39	1
2,4,5-Trichlorophenol	7.8	U	9.8	7.8	2.5	ug/L		07/08/24 11:39	1
2,2'-oxybis[1-chloropropane]	7.8	U	9.8	7.8	1.3	ug/L		07/08/24 11:39	1

Eurofins Denver

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Date Collected: 06/27/24 14:59

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Di-n-butyl phthalate	3.1	U	3.9	3.1	2.0	ug/L		07/08/24 11:39	1
Di-n-octyl phthalate	7.8	U	9.8	7.8	3.5	ug/L		07/08/24 11:39	1
Benzo[a]anthracene	3.1	U	3.9	3.1	0.94	ug/L		07/08/24 11:39	1
Benzo[a]pyrene	3.1	U	3.9	3.1	0.49	ug/L		07/08/24 11:39	1
Benzo[b]fluoranthene	3.1	U	3.9	3.1	2.1	ug/L		07/08/24 11:39	1
Benzo[g,h,i]perylene	3.1	U Q	3.9	3.1	2.8	ug/L		07/08/24 11:39	1
Benzo[k]fluoranthene	3.1	U	3.9	3.1	1.0	ug/L		07/08/24 11:39	1
Acenaphthene	3.1	U	3.9	3.1	0.94	ug/L		07/08/24 11:39	1
Acenaphthylene	3.1	U	3.9	3.1	0.73	ug/L		07/08/24 11:39	1
Acetophenone	7.8	U	9.8	7.8	2.2	ug/L		07/08/24 11:39	1
Anthracene	3.1	U	3.9	3.1	0.57	ug/L		07/08/24 11:39	1
Atrazine	3.1	U	9.8	3.1	0.64	ug/L		07/08/24 11:39	1
Benzaldehyde	3.1	U Q	4.9	3.1	1.1	ug/L		07/08/24 11:39	1
Butyl benzyl phthalate	3.1	U Q	3.9	3.1	1.5	ug/L		07/08/24 11:39	1
Caprolactam	9.8	U	15	9.8	5.4	ug/L		07/08/24 11:39	1
Chrysene	3.1	U	3.9	3.1	0.95	ug/L		07/08/24 11:39	1
Dibenz(a,h)anthracene	7.8	U Q	9.8	7.8	4.7	ug/L		07/08/24 11:39	1
Dibenzofuran	3.1	U	3.9	3.1	0.93	ug/L		07/08/24 11:39	1
Diethyl phthalate	3.1	U	3.9	3.1	1.3	ug/L		07/08/24 11:39	1
Hexachlorobenzene	7.8	U	9.8	7.8	2.2	ug/L		07/08/24 11:39	1
Hexachlorocyclopentadiene	47	U Q	49	47	16	ug/L		07/08/24 11:39	1
Hexachlorobutadiene	7.8	U	9.8	7.8	2.8	ug/L		07/08/24 11:39	1
Hexachloroethane	7.8	U	9.8	7.8	4.4	ug/L		07/08/24 11:39	1
Fluoranthene	3.1	U	3.9	3.1	1.1	ug/L		07/08/24 11:39	1
Fluorene	3.1	U	3.9	3.1	0.77	ug/L		07/08/24 11:39	1
Indeno[1,2,3-cd]pyrene	7.8	U	9.8	7.8	3.4	ug/L		07/08/24 11:39	1
Isophorone	7.8	U	9.8	7.8	1.9	ug/L		07/08/24 11:39	1
N-Nitrosodi-n-propylamine	7.8	U M	9.8	7.8	1.9	ug/L		07/08/24 11:39	1
N-Nitrosodiphenylamine	7.8	U	9.8	7.8	1.8	ug/L		07/08/24 11:39	1
Naphthalene	3.1	U	3.9	3.1	1.5	ug/L		07/08/24 11:39	1
Nitrobenzene	7.8	U	9.8	7.8	1.2	ug/L		07/08/24 11:39	1
Pentachlorophenol	47	U Q	49	47	20	ug/L		07/08/24 11:39	1
Phenanthrene	3.1	U	3.9	3.1	1.5	ug/L		07/08/24 11:39	1
Phenol	7.8	U	9.8	7.8	0.90	ug/L		07/08/24 11:39	1
Pyrene	7.8	U	9.8	7.8	2.3	ug/L		07/08/24 11:39	1
2-Chloronaphthalene	3.1	U	3.9	3.1	1.2	ug/L		07/08/24 11:39	1
2-Chlorophenol	7.8	U	9.8	7.8	2.5	ug/L		07/08/24 11:39	1
2-Methylnaphthalene	3.1	U	3.9	3.1	1.2	ug/L		07/08/24 11:39	1
2-Methylphenol	7.8	U	9.8	7.8	0.75	ug/L		07/08/24 11:39	1
2-Nitroaniline	3.1	U	9.8	3.1	2.6	ug/L		07/08/24 11:39	1
2-Nitrophenol	7.8	U	9.8	7.8	3.4	ug/L		07/08/24 11:39	1
3,3'-Dichlorobenzidine	29	U	49	29	3.3	ug/L		07/08/24 11:39	1
3-Nitroaniline	7.8	U	9.8	7.8	3.3	ug/L		07/08/24 11:39	1
4,6-Dinitro-2-methylphenol	29	U	49	29	3.9	ug/L		07/08/24 11:39	1
4-Bromophenyl phenyl ether	7.8	U	9.8	7.8	0.99	ug/L		07/08/24 11:39	1
4-Nitroaniline	7.8	U	9.8	7.8	2.6	ug/L		07/08/24 11:39	1
4-Nitrophenol	13	U	25	13	8.9	ug/L		07/08/24 11:39	1
Bis(2-chloroethoxy)methane	7.8	U	9.8	7.8	2.4	ug/L		07/08/24 11:39	1
Bis(2-chloroethyl)ether	7.8	U	9.8	7.8	2.0	ug/L		07/08/24 11:39	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Date Collected: 06/27/24 14:59

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	7.8	U Q	9.8	7.8	3.3	ug/L		07/08/24 11:39	1
2,6-Dinitrotoluene	7.8	U M	9.8	7.8	1.4	ug/L		07/08/24 11:39	1
4-Chloro-3-methylphenol	7.8	U	9.8	7.8	1.7	ug/L		07/08/24 11:39	1
4-Chloroaniline	13	U	20	13	6.2	ug/L		07/08/24 11:39	1
4-Chlorophenyl phenyl ether	7.8	U	9.8	7.8	1.2	ug/L		07/08/24 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	33		19 - 119	07/04/24 12:12	07/08/24 11:39	1
Phenol-d5 (Surr)	24		10 - 115	07/04/24 12:12	07/08/24 11:39	1
Nitrobenzene-d5 (Surr)	67		44 - 120	07/04/24 12:12	07/08/24 11:39	1
2-Fluorobiphenyl	50		44 - 119	07/04/24 12:12	07/08/24 11:39	1
2,4,6-Tribromophenol (Surr)	61		43 - 140	07/04/24 12:12	07/08/24 11:39	1
Terphenyl-d14 (Surr)	101		50 - 134	07/04/24 12:12	07/08/24 11:39	1

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylene Dibromide	0.014	U	0.020	0.014	0.0037	ug/L		07/01/24 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	115		70 - 130	07/01/24 08:37	07/01/24 19:47	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	35000		200	64	24	ug/L		07/12/24 14:31	1
Magnesium	4800		200	15	4.2	ug/L		07/12/24 14:31	1
Potassium	2900	J	3000	940	240	ug/L		07/12/24 14:31	1
Sodium	26000		1000	320	97	ug/L		07/12/24 14:31	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	9.2	J	100	34	9.1	ug/L		07/05/24 20:19	1
Manganese	130		10	1.8	0.45	ug/L		07/05/24 20:19	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	0.76	J	5.0	2.0	0.50	ug/L		07/10/24 11:47	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		07/10/24 11:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bromide (EPA 300.0)	0.40	U M	0.50	0.40	0.23	mg/L		07/02/24 17:48	1
Chloride (EPA 300.0)	8.1	M	3.0	2.5	1.0	mg/L		07/02/24 17:48	1
Sulfate (EPA 300.0)	26		5.0	2.5	1.0	mg/L		07/02/24 17:48	1
Nitrate Nitrite as N (EPA 353.2)	0.078	J	0.10	0.080	0.044	mg/L		07/08/24 15:23	1
Alkalinity (SM 2320B)	110		10	6.4	3.1	mg/L		07/02/24 13:43	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 00:22	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		07/11/24 00:22	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		07/11/24 00:22	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 00:22	1
N-Propylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 00:22	1
n-Butylbenzene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 00:22	1
4-Chlorotoluene	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 00:22	1
1,4-Dichlorobenzene	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 00:22	1
Ethylene Dibromide	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 00:22	1
3-Chloro-1-propene	1.0	U	2.0	1.0	0.46	ug/L		07/11/24 00:22	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 00:22	1
Acrylonitrile	8.0	U	20	8.0	1.7	ug/L		07/11/24 00:22	1
Vinyl acetate	2.0	U	3.0	2.0	0.36	ug/L		07/11/24 00:22	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		07/11/24 00:22	1
1,3,5-Trimethylbenzene	0.50	U	1.0	0.50	0.12	ug/L		07/11/24 00:22	1
Bromobenzene	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 00:22	1
Methylcyclohexane	0.40	U	1.0	0.40	0.31	ug/L		07/11/24 00:22	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 00:22	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		07/11/24 00:22	1
Tetrahydrofuran	6.4	U	7.0	6.4	0.84	ug/L		07/11/24 00:22	1
Hexane	0.80	U	2.0	0.80	0.16	ug/L		07/11/24 00:22	1
trans-1,4-Dichloro-2-butene	1.6	U	3.0	1.6	0.51	ug/L		07/11/24 00:22	1
Cyclohexane	0.80	U	1.0	0.80	0.44	ug/L		07/11/24 00:22	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.58	ug/L		07/11/24 00:22	1
Chlorodibromomethane	0.50	U	1.0	0.50	0.28	ug/L		07/11/24 00:22	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 00:22	1
sec-Butylbenzene	0.80	U	1.0	0.80	0.20	ug/L		07/11/24 00:22	1
1,3-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 00:22	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 00:22	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	0.37	ug/L		07/11/24 00:22	1
Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25	ug/L		07/11/24 00:22	1
m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.36	ug/L		07/11/24 00:22	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.33	ug/L		07/11/24 00:22	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		07/11/24 00:22	1
1,1-Dichloropropene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 00:22	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		07/11/24 00:22	1
2,2-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/11/24 00:22	1
Ethyl ether	0.80	U	2.0	0.80	0.35	ug/L		07/11/24 00:22	1
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.16	ug/L		07/11/24 00:22	1
Acetone	8.0	U	15	8.0	6.6	ug/L		07/11/24 00:22	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		07/11/24 00:22	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		07/11/24 00:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		07/11/24 00:22	1
Bromomethane	4.0	U Q	5.0	4.0	2.4	ug/L		07/11/24 00:22	1
Chloromethane	1.0	U Q	2.0	1.0	0.23	ug/L		07/11/24 00:22	1
Iodomethane	4.0	U Q	5.0	4.0	2.6	ug/L		07/11/24 00:22	1
Dibromomethane	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 00:22	1
Chlorobromomethane	0.80	U	1.0	0.80	0.40	ug/L		07/11/24 00:22	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		07/11/24 00:22	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		07/11/24 00:22	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		07/11/24 00:22	1
Carbon disulfide	0.85	J	2.0	0.80	0.26	ug/L		07/11/24 00:22	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		07/11/24 00:22	1
Dichlorobromomethane	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 00:22	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		07/11/24 00:22	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		07/11/24 00:22	1
Trichlorofluoromethane	0.80	U	2.0	0.80	0.20	ug/L		07/11/24 00:22	1
Dichlorodifluoromethane	1.0	U Q	2.0	1.0	0.30	ug/L		07/11/24 00:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	U	3.0	1.8	0.73	ug/L		07/11/24 00:22	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		07/11/24 00:22	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		07/11/24 00:22	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		07/11/24 00:22	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		07/11/24 00:22	1
Methyl acetate	4.0	U	5.0	4.0	1.6	ug/L		07/11/24 00:22	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		07/11/24 00:22	1
1,2,3-Trichlorobenzene	2.5	U	4.0	2.5	1.2	ug/L		07/11/24 00:22	1
Hexachlorobutadiene	1.8	U	2.0	1.8	0.53	ug/L		07/11/24 00:22	1
Naphthalene	2.0	U	3.0	2.0	0.99	ug/L		07/11/24 00:22	1
o-Xylene	0.40	U	1.0	0.40	0.11	ug/L		07/11/24 00:22	1
2-Chlorotoluene	0.40	U	1.0	0.40	0.34	ug/L		07/11/24 00:22	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	0.14	ug/L		07/11/24 00:22	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15	ug/L		07/11/24 00:22	1
1,2-Dibromo-3-Chloropropane	4.0	U	5.0	4.0	0.42	ug/L		07/11/24 00:22	1
1,2,3-Trichloropropane	1.8	U	2.5	1.8	0.28	ug/L		07/11/24 00:22	1
Ethyl methacrylate	2.0	U	3.0	2.0	0.19	ug/L		07/11/24 00:22	1
tert-Butylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/11/24 00:22	1
Isopropylbenzene	0.50	U	1.0	0.50	0.16	ug/L		07/11/24 00:22	1
4-Isopropyltoluene	0.80	U	1.0	0.80	0.19	ug/L		07/11/24 00:22	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		07/11/24 00:22	1
1,3-Dichloropropene, Total	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 00:22	1
Trihalomethanes, Total	0.50	U	1.0	0.50	0.19	ug/L		07/11/24 00:22	1
Total BTEX	0.40	U	1.0	0.40	0.14	ug/L		07/11/24 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		81 - 118		07/11/24 00:22	1
Dibromofluoromethane (Surr)	102		80 - 119		07/11/24 00:22	1
Toluene-d8 (Surr)	100		89 - 112		07/11/24 00:22	1
4-Bromofluorobenzene (Surr)	96		85 - 114		07/11/24 00:22	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1'-Biphenyl	8.1	U	10	8.1	1.2	ug/L		07/08/24 12:01	1
2,4-Dichlorophenol	8.1	U	10	8.1	3.0	ug/L		07/08/24 12:01	1
2,4-Dimethylphenol	8.1	U	10	8.1	1.4	ug/L		07/08/24 12:01	1
2,4-Dinitrophenol	20	U	30	20	13	ug/L		07/08/24 12:01	1
2,4-Dinitrotoluene	8.1	U	10	8.1	1.4	ug/L		07/08/24 12:01	1
2,4,6-Trichlorophenol	8.1	U	10	8.1	2.3	ug/L		07/08/24 12:01	1
2,4,5-Trichlorophenol	8.1	U	10	8.1	2.6	ug/L		07/08/24 12:01	1
2,2'-oxybis[1-chloropropane]	8.1	U	10	8.1	1.3	ug/L		07/08/24 12:01	1

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Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Di-n-butyl phthalate	3.2	U	4.0	3.2	2.1	ug/L		07/08/24 12:01	1
Di-n-octyl phthalate	8.1	U M	10	8.1	3.6	ug/L		07/08/24 12:01	1
Benzo[a]anthracene	3.2	U	4.0	3.2	0.97	ug/L		07/08/24 12:01	1
Benzo[a]pyrene	3.2	U	4.0	3.2	0.50	ug/L		07/08/24 12:01	1
Benzo[b]fluoranthene	3.2	U	4.0	3.2	2.2	ug/L		07/08/24 12:01	1
Benzo[g,h,i]perylene	3.2	U Q	4.0	3.2	2.9	ug/L		07/08/24 12:01	1
Benzo[k]fluoranthene	3.2	U	4.0	3.2	1.1	ug/L		07/08/24 12:01	1
Acenaphthene	3.2	U	4.0	3.2	0.97	ug/L		07/08/24 12:01	1
Acenaphthylene	3.2	U	4.0	3.2	0.75	ug/L		07/08/24 12:01	1
Acetophenone	8.1	U	10	8.1	2.3	ug/L		07/08/24 12:01	1
Anthracene	3.2	U	4.0	3.2	0.58	ug/L		07/08/24 12:01	1
Atrazine	3.2	U	10	3.2	0.65	ug/L		07/08/24 12:01	1
Benzaldehyde	3.2	U Q	5.0	3.2	1.2	ug/L		07/08/24 12:01	1
Butyl benzyl phthalate	3.2	U Q	4.0	3.2	1.5	ug/L		07/08/24 12:01	1
Caprolactam	10	U	15	10	5.6	ug/L		07/08/24 12:01	1
Chrysene	3.2	U	4.0	3.2	0.98	ug/L		07/08/24 12:01	1
Dibenz(a,h)anthracene	8.1	U Q	10	8.1	4.8	ug/L		07/08/24 12:01	1
Dibenzofuran	3.2	U	4.0	3.2	0.96	ug/L		07/08/24 12:01	1
Diethyl phthalate	3.2	U	4.0	3.2	1.4	ug/L		07/08/24 12:01	1
Hexachlorobenzene	8.1	U	10	8.1	2.3	ug/L		07/08/24 12:01	1
Hexachlorocyclopentadiene	48	U Q	50	48	16	ug/L		07/08/24 12:01	1
Hexachlorobutadiene	8.1	U	10	8.1	2.9	ug/L		07/08/24 12:01	1
Hexachloroethane	8.1	U	10	8.1	4.5	ug/L		07/08/24 12:01	1
Fluoranthene	3.2	U	4.0	3.2	1.1	ug/L		07/08/24 12:01	1
Fluorene	3.2	U	4.0	3.2	0.79	ug/L		07/08/24 12:01	1
Indeno[1,2,3-cd]pyrene	8.1	U	10	8.1	3.5	ug/L		07/08/24 12:01	1
Isophorone	8.1	U	10	8.1	2.0	ug/L		07/08/24 12:01	1
N-Nitrosodi-n-propylamine	8.1	U	10	8.1	1.9	ug/L		07/08/24 12:01	1
N-Nitrosodiphenylamine	8.1	U	10	8.1	1.8	ug/L		07/08/24 12:01	1
Naphthalene	3.2	U	4.0	3.2	1.5	ug/L		07/08/24 12:01	1
Nitrobenzene	8.1	U	10	8.1	1.3	ug/L		07/08/24 12:01	1
Pentachlorophenol	48	U Q	50	48	20	ug/L		07/08/24 12:01	1
Phenanthrene	3.2	U	4.0	3.2	1.6	ug/L		07/08/24 12:01	1
Phenol	8.1	U	10	8.1	0.93	ug/L		07/08/24 12:01	1
Pyrene	8.1	U	10	8.1	2.4	ug/L		07/08/24 12:01	1
2-Chloronaphthalene	3.2	U	4.0	3.2	1.3	ug/L		07/08/24 12:01	1
2-Chlorophenol	8.1	U	10	8.1	2.6	ug/L		07/08/24 12:01	1
2-Methylnaphthalene	3.2	U	4.0	3.2	1.2	ug/L		07/08/24 12:01	1
2-Methylphenol	8.1	U	10	8.1	0.78	ug/L		07/08/24 12:01	1
2-Nitroaniline	3.2	U	10	3.2	2.6	ug/L		07/08/24 12:01	1
2-Nitrophenol	8.1	U	10	8.1	3.5	ug/L		07/08/24 12:01	1
3,3'-Dichlorobenzidine	30	U	50	30	3.4	ug/L		07/08/24 12:01	1
3-Nitroaniline	8.1	U M	10	8.1	3.4	ug/L		07/08/24 12:01	1
4,6-Dinitro-2-methylphenol	30	U	50	30	4.1	ug/L		07/08/24 12:01	1
4-Bromophenyl phenyl ether	8.1	U	10	8.1	1.0	ug/L		07/08/24 12:01	1
4-Nitroaniline	8.1	U	10	8.1	2.6	ug/L		07/08/24 12:01	1
4-Nitrophenol	13	U	25	13	9.1	ug/L		07/08/24 12:01	1
Bis(2-chloroethoxy)methane	8.1	U	10	8.1	2.4	ug/L		07/08/24 12:01	1
Bis(2-chloroethyl)ether	8.1	U	10	8.1	2.0	ug/L		07/08/24 12:01	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	16	Q	10	8.1	3.3	ug/L		07/08/24 12:01	1
2,6-Dinitrotoluene	8.1	U M	10	8.1	1.4	ug/L		07/08/24 12:01	1
4-Chloro-3-methylphenol	8.1	U	10	8.1	1.7	ug/L		07/08/24 12:01	1
4-Chloroaniline	13	U	20	13	6.3	ug/L		07/08/24 12:01	1
4-Chlorophenyl phenyl ether	8.1	U	10	8.1	1.2	ug/L		07/08/24 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	35		19 - 119	07/04/24 12:12	07/08/24 12:01	1
Phenol-d5 (Surr)	28		10 - 115	07/04/24 12:12	07/08/24 12:01	1
Nitrobenzene-d5 (Surr)	78		44 - 120	07/04/24 12:12	07/08/24 12:01	1
2-Fluorobiphenyl	56		44 - 119	07/04/24 12:12	07/08/24 12:01	1
2,4,6-Tribromophenol (Surr)	64		43 - 140	07/04/24 12:12	07/08/24 12:01	1
Terphenyl-d14 (Surr)	98		50 - 134	07/04/24 12:12	07/08/24 12:01	1

Method: SW846 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylene Dibromide	0.014	U	0.020	0.014	0.0037	ug/L		07/01/24 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dibromopropane	116		70 - 130	07/01/24 08:37	07/01/24 20:14	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	800		200	64	24	ug/L		07/12/24 14:35	1
Magnesium	100	J	200	15	4.2	ug/L		07/12/24 14:35	1
Potassium	940	U	3000	940	240	ug/L		07/12/24 14:35	1
Sodium	250	J	1000	320	97	ug/L		07/12/24 14:35	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	34	U	100	34	9.1	ug/L		07/05/24 20:23	1
Manganese	9.4	J	10	1.8	0.45	ug/L		07/05/24 20:23	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.0	U	5.0	2.0	0.50	ug/L		07/10/24 11:49	1
Lead	0.24	J	1.0	0.70	0.23	ug/L		07/10/24 11:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bromide (EPA 300.0)	0.40	U M	0.50	0.40	0.23	mg/L		07/02/24 17:26	1
Chloride (EPA 300.0)	8.1	M	3.0	2.5	1.0	mg/L		07/02/24 17:26	1
Sulfate (EPA 300.0)	26		5.0	2.5	1.0	mg/L		07/02/24 17:26	1
Nitrate Nitrite as N (EPA 353.2)	0.080	U	0.10	0.080	0.044	mg/L		07/08/24 15:25	1
Alkalinity (SM 2320B)	110		10	6.4	3.1	mg/L		07/02/24 13:49	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: Trip Blank

Lab Sample ID: 280-193472-4

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 22:57	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		07/10/24 22:57	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		07/10/24 22:57	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 22:57	1
N-Propylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 22:57	1
n-Butylbenzene	0.80	U	1.0	0.80	0.23	ug/L		07/10/24 22:57	1
4-Chlorotoluene	0.80	U	1.0	0.80	0.21	ug/L		07/10/24 22:57	1
1,4-Dichlorobenzene	0.50	U	1.0	0.50	0.39	ug/L		07/10/24 22:57	1
Ethylene Dibromide	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 22:57	1
3-Chloro-1-propene	1.0	U	2.0	1.0	0.46	ug/L		07/10/24 22:57	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		07/10/24 22:57	1
Acrylonitrile	8.0	U	20	8.0	1.7	ug/L		07/10/24 22:57	1
Vinyl acetate	2.0	U	3.0	2.0	0.36	ug/L		07/10/24 22:57	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		07/10/24 22:57	1
1,3,5-Trimethylbenzene	0.50	U	1.0	0.50	0.12	ug/L		07/10/24 22:57	1
Bromobenzene	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 22:57	1
Methylcyclohexane	0.40	U	1.0	0.40	0.31	ug/L		07/10/24 22:57	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 22:57	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		07/10/24 22:57	1
Tetrahydrofuran	6.4	U	7.0	6.4	0.84	ug/L		07/10/24 22:57	1
Hexane	0.80	U	2.0	0.80	0.16	ug/L		07/10/24 22:57	1
trans-1,4-Dichloro-2-butene	1.6	U	3.0	1.6	0.51	ug/L		07/10/24 22:57	1
Cyclohexane	0.80	U	1.0	0.80	0.44	ug/L		07/10/24 22:57	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.58	ug/L		07/10/24 22:57	1
Chlorodibromomethane	0.50	U	1.0	0.50	0.28	ug/L		07/10/24 22:57	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		07/10/24 22:57	1
sec-Butylbenzene	0.80	U	1.0	0.80	0.20	ug/L		07/10/24 22:57	1
1,3-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/10/24 22:57	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 22:57	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	0.37	ug/L		07/10/24 22:57	1
Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25	ug/L		07/10/24 22:57	1
m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.36	ug/L		07/10/24 22:57	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.33	ug/L		07/10/24 22:57	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		07/10/24 22:57	1
1,1-Dichloropropene	0.80	U	1.0	0.80	0.19	ug/L		07/10/24 22:57	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		07/10/24 22:57	1
2,2-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/10/24 22:57	1
Ethyl ether	0.80	U	2.0	0.80	0.35	ug/L		07/10/24 22:57	1
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.16	ug/L		07/10/24 22:57	1
Acetone	8.0	U	15	8.0	6.6	ug/L		07/10/24 22:57	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		07/10/24 22:57	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		07/10/24 22:57	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		07/10/24 22:57	1
Bromomethane	4.0	U Q	5.0	4.0	2.4	ug/L		07/10/24 22:57	1
Chloromethane	1.0	U Q	2.0	1.0	0.23	ug/L		07/10/24 22:57	1
Iodomethane	4.0	U Q	5.0	4.0	2.6	ug/L		07/10/24 22:57	1
Dibromomethane	0.40	U	1.0	0.40	0.34	ug/L		07/10/24 22:57	1
Chlorobromomethane	0.80	U	1.0	0.80	0.40	ug/L		07/10/24 22:57	1
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		07/10/24 22:57	1

Client Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: Trip Blank

Lab Sample ID: 280-193472-4

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		07/10/24 22:57	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		07/10/24 22:57	1
Carbon disulfide	0.80	U	2.0	0.80	0.26	ug/L		07/10/24 22:57	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		07/10/24 22:57	1
Dichlorobromomethane	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 22:57	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		07/10/24 22:57	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		07/10/24 22:57	1
Trichlorofluoromethane	0.80	U	2.0	0.80	0.20	ug/L		07/10/24 22:57	1
Dichlorodifluoromethane	1.0	U Q	2.0	1.0	0.30	ug/L		07/10/24 22:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	U	3.0	1.8	0.73	ug/L		07/10/24 22:57	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		07/10/24 22:57	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		07/10/24 22:57	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		07/10/24 22:57	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		07/10/24 22:57	1
Methyl acetate	4.0	U	5.0	4.0	1.6	ug/L		07/10/24 22:57	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		07/10/24 22:57	1
1,2,3-Trichlorobenzene	2.5	U	4.0	2.5	1.2	ug/L		07/10/24 22:57	1
Hexachlorobutadiene	1.8	U	2.0	1.8	0.53	ug/L		07/10/24 22:57	1
Naphthalene	2.0	U	3.0	2.0	0.99	ug/L		07/10/24 22:57	1
o-Xylene	0.40	U	1.0	0.40	0.11	ug/L		07/10/24 22:57	1
2-Chlorotoluene	0.40	U	1.0	0.40	0.34	ug/L		07/10/24 22:57	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	0.14	ug/L		07/10/24 22:57	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15	ug/L		07/10/24 22:57	1
1,2-Dibromo-3-Chloropropane	4.0	U	5.0	4.0	0.42	ug/L		07/10/24 22:57	1
1,2,3-Trichloropropane	1.8	U	2.5	1.8	0.28	ug/L		07/10/24 22:57	1
Ethyl methacrylate	2.0	U	3.0	2.0	0.19	ug/L		07/10/24 22:57	1
tert-Butylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 22:57	1
Isopropylbenzene	0.50	U	1.0	0.50	0.16	ug/L		07/10/24 22:57	1
4-Isopropyltoluene	0.80	U	1.0	0.80	0.19	ug/L		07/10/24 22:57	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 22:57	1
1,3-Dichloropropene, Total	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 22:57	1
Trihalomethanes, Total	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 22:57	1
Total BTEX	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		81 - 118		07/10/24 22:57	1
Dibromofluoromethane (Surr)	104		80 - 119		07/10/24 22:57	1
Toluene-d8 (Surr)	100		89 - 112		07/10/24 22:57	1
4-Bromofluorobenzene (Surr)	100		85 - 114		07/10/24 22:57	1

Default Detection Limits

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Analyte	LOQ	DL	Units
1,1,1,2-Tetrachloroethane	1.0	0.16	ug/L
1,1,1-Trichloroethane	1.0	0.39	ug/L
1,1,2,2-Tetrachloroethane	1.0	0.21	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	0.73	ug/L
1,1,2-Trichloroethane	1.0	0.27	ug/L
1,1-Dichloroethane	1.0	0.22	ug/L
1,1-Dichloroethene	1.0	0.23	ug/L
1,1-Dichloropropene	1.0	0.19	ug/L
1,2,3-Trichlorobenzene	4.0	1.2	ug/L
1,2,3-Trichloropropane	2.5	0.28	ug/L
1,2,4-Trichlorobenzene	1.0	0.58	ug/L
1,2,4-Trimethylbenzene	1.0	0.15	ug/L
1,2-Dibromo-3-Chloropropane	5.0	0.42	ug/L
1,2-Dichlorobenzene	1.0	0.14	ug/L
1,2-Dichloroethane	1.0	0.28	ug/L
1,2-Dichloroethene, Total	1.0	0.32	ug/L
1,2-Dichloropropane	1.0	0.24	ug/L
1,3,5-Trimethylbenzene	1.0	0.12	ug/L
1,3-Dichlorobenzene	1.0	0.33	ug/L
1,3-Dichloropropane	1.0	0.17	ug/L
1,3-Dichloropropene, Total	1.0	0.14	ug/L
1,4-Dichlorobenzene	1.0	0.39	ug/L
2,2-Dichloropropane	1.0	0.17	ug/L
2-Butanone (MEK)	10	4.6	ug/L
2-Chlorotoluene	1.0	0.34	ug/L
2-Hexanone	5.0	0.81	ug/L
3-Chloro-1-propene	2.0	0.46	ug/L
4-Chlorotoluene	1.0	0.21	ug/L
4-Isopropyltoluene	1.0	0.19	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	0.98	ug/L
Acetone	15	6.6	ug/L
Acrylonitrile	20	1.7	ug/L
Benzene	1.0	0.14	ug/L
Bromobenzene	1.0	0.19	ug/L
Bromoform	2.0	0.25	ug/L
Bromomethane	5.0	2.4	ug/L
Carbon disulfide	2.0	0.26	ug/L
Carbon tetrachloride	1.0	0.23	ug/L
Chlorobenzene	1.0	0.092	ug/L
Chlorobromomethane	1.0	0.40	ug/L
Chlorodibromomethane	1.0	0.28	ug/L
Chloroethane	2.0	0.64	ug/L
Chloroform	1.0	0.36	ug/L
Chloromethane	2.0	0.23	ug/L
cis-1,2-Dichloroethene	1.0	0.32	ug/L
cis-1,3-Dichloropropene	1.0	0.16	ug/L
Cyclohexane	1.0	0.44	ug/L
Dibromomethane	1.0	0.34	ug/L
Dichlorobromomethane	1.0	0.19	ug/L
Dichlorodifluoromethane	2.0	0.30	ug/L
Ethyl ether	2.0	0.35	ug/L
Ethyl methacrylate	3.0	0.19	ug/L
Ethylbenzene	1.0	0.14	ug/L

Default Detection Limits

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	LOQ	DL	Units
Ethylene Dibromide	1.0	0.18	ug/L
Hexachlorobutadiene	2.0	0.53	ug/L
Hexane	2.0	0.16	ug/L
Iodomethane	5.0	2.6	ug/L
Isopropylbenzene	1.0	0.16	ug/L
Methyl acetate	5.0	1.6	ug/L
Methyl tert-butyl ether	5.0	0.25	ug/L
Methylcyclohexane	1.0	0.31	ug/L
Methylene Chloride	2.0	0.94	ug/L
m-Xylene & p-Xylene	2.0	0.36	ug/L
Naphthalene	3.0	0.99	ug/L
n-Butylbenzene	1.0	0.23	ug/L
N-Propylbenzene	1.0	0.18	ug/L
o-Xylene	1.0	0.11	ug/L
sec-Butylbenzene	1.0	0.20	ug/L
Styrene	1.0	0.13	ug/L
tert-Butylbenzene	1.0	0.18	ug/L
Tetrachloroethene	1.0	0.40	ug/L
Tetrahydrofuran	7.0	0.84	ug/L
Toluene	1.0	0.32	ug/L
Total BTEX	1.0	0.14	ug/L
trans-1,2-Dichloroethene	1.0	0.37	ug/L
trans-1,3-Dichloropropene	1.0	0.14	ug/L
trans-1,4-Dichloro-2-butene	3.0	0.51	ug/L
Trichloroethene	1.0	0.30	ug/L
Trichlorofluoromethane	2.0	0.20	ug/L
Trihalomethanes, Total	1.0	0.19	ug/L
Vinyl acetate	3.0	0.36	ug/L
Vinyl chloride	1.0	0.23	ug/L

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Prep: 3510C

Analyte	LOQ	DL	Units
1,1'-Biphenyl	10	1.2	ug/L
2,2'-oxybis[1-chloropropane]	10	1.3	ug/L
2,4,5-Trichlorophenol	10	2.6	ug/L
2,4,6-Trichlorophenol	10	2.3	ug/L
2,4-Dichlorophenol	10	3.0	ug/L
2,4-Dimethylphenol	10	1.4	ug/L
2,4-Dinitrophenol	30	13	ug/L
2,4-Dinitrotoluene	10	1.4	ug/L
2,6-Dinitrotoluene	10	1.4	ug/L
2-Chloronaphthalene	4.0	1.3	ug/L
2-Chlorophenol	10	2.6	ug/L
2-Methylnaphthalene	4.0	1.2	ug/L
2-Methylphenol	10	0.77	ug/L
2-Nitroaniline	10	2.6	ug/L
2-Nitrophenol	10	3.5	ug/L
3,3'-Dichlorobenzidine	50	3.4	ug/L
3-Nitroaniline	10	3.3	ug/L
4,6-Dinitro-2-methylphenol	50	4.0	ug/L
4-Bromophenyl phenyl ether	10	1.0	ug/L

Default Detection Limits

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Prep: 3510C

Analyte	LOQ	DL	Units
4-Chloro-3-methylphenol	10	1.7	ug/L
4-Chloroaniline	20	6.3	ug/L
4-Chlorophenyl phenyl ether	10	1.2	ug/L
4-Nitroaniline	10	2.6	ug/L
4-Nitrophenol	25	9.1	ug/L
Acenaphthene	4.0	0.96	ug/L
Acenaphthylene	4.0	0.75	ug/L
Acetophenone	10	2.3	ug/L
Anthracene	4.0	0.58	ug/L
Atrazine	10	0.65	ug/L
Benzaldehyde	5.0	1.2	ug/L
Benzo[a]anthracene	4.0	0.96	ug/L
Benzo[a]pyrene	4.0	0.50	ug/L
Benzo[b]fluoranthene	4.0	2.2	ug/L
Benzo[g,h,i]perylene	4.0	2.8	ug/L
Benzo[k]fluoranthene	4.0	1.1	ug/L
Bis(2-chloroethoxy)methane	10	2.4	ug/L
Bis(2-chloroethyl)ether	10	2.0	ug/L
Bis(2-ethylhexyl) phthalate	10	3.3	ug/L
Butyl benzyl phthalate	4.0	1.5	ug/L
Caprolactam	15	5.5	ug/L
Chrysene	4.0	0.97	ug/L
Dibenz(a,h)anthracene	10	4.8	ug/L
Dibenzofuran	4.0	0.95	ug/L
Diethyl phthalate	4.0	1.4	ug/L
Di-n-butyl phthalate	4.0	2.1	ug/L
Di-n-octyl phthalate	10	3.6	ug/L
Fluoranthene	4.0	1.1	ug/L
Fluorene	4.0	0.78	ug/L
Hexachlorobenzene	10	2.3	ug/L
Hexachlorobutadiene	10	2.9	ug/L
Hexachlorocyclopentadiene	50	16	ug/L
Hexachloroethane	10	4.5	ug/L
Indeno[1,2,3-cd]pyrene	10	3.4	ug/L
Isophorone	10	2.0	ug/L
Naphthalene	4.0	1.5	ug/L
Nitrobenzene	10	1.3	ug/L
N-Nitrosodi-n-propylamine	10	1.9	ug/L
N-Nitrosodiphenylamine	10	1.8	ug/L
Pentachlorophenol	50	20	ug/L
Phenanthrene	4.0	1.6	ug/L
Phenol	10	0.92	ug/L
Pyrene	10	2.4	ug/L

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Prep: 8011

Analyte	LOQ	DL	Units
Ethylene Dibromide	0.020	0.0037	ug/L

Method: 6010D - Metals (ICP)

Prep: 3020A

Default Detection Limits

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 6010D - Metals (ICP)

Prep: 3020A

Analyte	LOQ	DL	Units
Calcium	200	24	ug/L
Magnesium	200	4.2	ug/L
Potassium	3000	240	ug/L
Sodium	1000	97	ug/L

Method: 6010D - Metals (ICP) - Dissolved

Prep: 3005A

Analyte	LOQ	DL	Units
Iron	100	9.1	ug/L
Manganese	10	0.45	ug/L

Method: 6020B - Metals (ICP/MS)

Prep: 3020A

Analyte	LOQ	DL	Units
Arsenic	5.0	0.50	ug/L
Lead	1.0	0.23	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Bromide	0.50	0.23	mg/L
Chloride	3.0	1.0	mg/L
Sulfate	5.0	1.0	mg/L
Nitrate Nitrite as N	0.10	0.044	mg/L
Alkalinity	10	3.1	mg/L

Surrogate Summary

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (81-118)	DBFM (80-119)	TOL (89-112)	BFB (85-114)
280-193472-1	WUABAF MW-01 (PDB)	97	104	98	99
280-193472-2	WUABAF MW-01 (BP)	99	105	98	98
280-193472-3	WUABAF MW-01 (Rinsate)	99	102	100	96
280-193472-4	Trip Blank	100	104	100	100
LCS 280-659975/4	Lab Control Sample	96	99	98	102
LCSD 280-659975/5	Lab Control Sample Dup	97	100	100	100
MB 280-659975/9	Method Blank	99	104	99	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (19-119)	PHL (10-115)	NBZ (44-120)	FBP (44-119)	TBP (43-140)	TPHL (50-134)
280-193472-1	WUABAF MW-01 (PDB)	39	29	76	55	71	89
280-193472-2	WUABAF MW-01 (BP)	33	24	67	50	61	101
280-193472-3	WUABAF MW-01 (Rinsate)	35	28	78	56	64	98
LCS 280-659338/2-A	Lab Control Sample	37	27	71	48	78	116
MB 280-659338/1-A	Method Blank	26	18	60	45	54	109

Surrogate Legend

2FP = 2-Fluorophenol (Surr)

PHL = Phenol-d5 (Surr)

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl

TBP = 2,4,6-Tribromophenol (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	12DBP1
		(70-130)
280-193472-1	WUABAF MW-01 (PDB)	108
280-193472-2	WUABAF MW-01 (BP)	115
280-193472-3	WUABAF MW-01 (Rinsate)	116
LCS 280-658886/2-A	Lab Control Sample	109
LCS 280-659019/2-A	Lab Control Sample	114
LCSD 280-658886/3-A	Lab Control Sample Dup	114
LCSD 280-659019/3-A	Lab Control Sample Dup	119
MB 280-658886/1-A	Method Blank	115
MB 280-659019/1-A	Method Blank	112

Surrogate Legend

12DBP = 1,2-Dibromopropane

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-659975/9

Matrix: Water

Analysis Batch: 659975

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Ethylbenzene	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 21:34	1
Styrene	0.80	U	1.0	0.80	0.13	ug/L		07/10/24 21:34	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16	ug/L		07/10/24 21:34	1
trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 21:34	1
N-Propylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 21:34	1
n-Butylbenzene	0.80	U	1.0	0.80	0.23	ug/L		07/10/24 21:34	1
4-Chlorotoluene	0.80	U	1.0	0.80	0.21	ug/L		07/10/24 21:34	1
1,4-Dichlorobenzene	0.50	U	1.0	0.50	0.39	ug/L		07/10/24 21:34	1
Ethylene Dibromide	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 21:34	1
3-Chloro-1-propene	0.831	J	2.0	1.0	0.46	ug/L		07/10/24 21:34	1
1,2-Dichloroethane	0.50	U	1.0	0.50	0.28	ug/L		07/10/24 21:34	1
Acrylonitrile	8.0	U	20	8.0	1.7	ug/L		07/10/24 21:34	1
Vinyl acetate	2.0	U	3.0	2.0	0.36	ug/L		07/10/24 21:34	1
4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	0.98	ug/L		07/10/24 21:34	1
1,3,5-Trimethylbenzene	0.50	U	1.0	0.50	0.12	ug/L		07/10/24 21:34	1
Bromobenzene	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 21:34	1
Methylcyclohexane	0.40	U	1.0	0.40	0.31	ug/L		07/10/24 21:34	1
Toluene	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 21:34	1
Chlorobenzene	0.80	U	1.0	0.80	0.092	ug/L		07/10/24 21:34	1
Tetrahydrofuran	6.4	U	7.0	6.4	0.84	ug/L		07/10/24 21:34	1
Hexane	0.80	U	2.0	0.80	0.16	ug/L		07/10/24 21:34	1
trans-1,4-Dichloro-2-butene	1.6	U	3.0	1.6	0.51	ug/L		07/10/24 21:34	1
Cyclohexane	0.80	U	1.0	0.80	0.44	ug/L		07/10/24 21:34	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.58	ug/L		07/10/24 21:34	1
Chlorodibromomethane	0.50	U	1.0	0.50	0.28	ug/L		07/10/24 21:34	1
Tetrachloroethene	0.80	U	1.0	0.80	0.40	ug/L		07/10/24 21:34	1
sec-Butylbenzene	0.80	U	1.0	0.80	0.20	ug/L		07/10/24 21:34	1
1,3-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/10/24 21:34	1
cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 21:34	1
trans-1,2-Dichloroethene	0.50	U	1.0	0.50	0.37	ug/L		07/10/24 21:34	1
Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25	ug/L		07/10/24 21:34	1
m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.36	ug/L		07/10/24 21:34	1
1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.33	ug/L		07/10/24 21:34	1
Carbon tetrachloride	0.50	U	1.0	0.50	0.23	ug/L		07/10/24 21:34	1
1,1-Dichloropropene	0.80	U	1.0	0.80	0.19	ug/L		07/10/24 21:34	1
2-Hexanone	4.0	U	5.0	4.0	0.81	ug/L		07/10/24 21:34	1
2,2-Dichloropropane	0.80	U	1.0	0.80	0.17	ug/L		07/10/24 21:34	1
Ethyl ether	0.80	U	2.0	0.80	0.35	ug/L		07/10/24 21:34	1
1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.16	ug/L		07/10/24 21:34	1
Acetone	8.0	U	15	8.0	6.6	ug/L		07/10/24 21:34	1
Chloroform	0.80	U	1.0	0.80	0.36	ug/L		07/10/24 21:34	1
Benzene	0.80	U	1.0	0.80	0.14	ug/L		07/10/24 21:34	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	0.39	ug/L		07/10/24 21:34	1
Bromomethane	4.0	U	5.0	4.0	2.4	ug/L		07/10/24 21:34	1
Chloromethane	1.0	U	2.0	1.0	0.23	ug/L		07/10/24 21:34	1
Iodomethane	4.0	U	5.0	4.0	2.6	ug/L		07/10/24 21:34	1
Dibromomethane	0.40	U	1.0	0.40	0.34	ug/L		07/10/24 21:34	1
Chlorobromomethane	0.80	U	1.0	0.80	0.40	ug/L		07/10/24 21:34	1

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-659975/9
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloroethane	1.0	U	2.0	1.0	0.64	ug/L		07/10/24 21:34	1
Vinyl chloride	0.40	U	1.0	0.40	0.23	ug/L		07/10/24 21:34	1
Methylene Chloride	1.8	U	2.0	1.8	0.94	ug/L		07/10/24 21:34	1
Carbon disulfide	0.80	U	2.0	0.80	0.26	ug/L		07/10/24 21:34	1
Bromoform	1.8	U	2.0	1.8	0.25	ug/L		07/10/24 21:34	1
Dichlorobromomethane	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 21:34	1
1,1-Dichloroethane	0.80	U	1.0	0.80	0.22	ug/L		07/10/24 21:34	1
1,1-Dichloroethene	0.80	U	1.0	0.80	0.23	ug/L		07/10/24 21:34	1
Trichlorofluoromethane	0.80	U	2.0	0.80	0.20	ug/L		07/10/24 21:34	1
Dichlorodifluoromethane	1.0	U	2.0	1.0	0.30	ug/L		07/10/24 21:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8	U	3.0	1.8	0.73	ug/L		07/10/24 21:34	1
1,2-Dichloropropane	0.80	U	1.0	0.80	0.24	ug/L		07/10/24 21:34	1
2-Butanone (MEK)	8.0	U	10	8.0	4.6	ug/L		07/10/24 21:34	1
1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.27	ug/L		07/10/24 21:34	1
Trichloroethene	0.40	U	1.0	0.40	0.30	ug/L		07/10/24 21:34	1
Methyl acetate	4.0	U	5.0	4.0	1.6	ug/L		07/10/24 21:34	1
1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.21	ug/L		07/10/24 21:34	1
1,2,3-Trichlorobenzene	2.5	U	4.0	2.5	1.2	ug/L		07/10/24 21:34	1
Hexachlorobutadiene	1.8	U	2.0	1.8	0.53	ug/L		07/10/24 21:34	1
Naphthalene	2.0	U	3.0	2.0	0.99	ug/L		07/10/24 21:34	1
o-Xylene	0.40	U	1.0	0.40	0.11	ug/L		07/10/24 21:34	1
2-Chlorotoluene	0.40	U	1.0	0.40	0.34	ug/L		07/10/24 21:34	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	0.14	ug/L		07/10/24 21:34	1
1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.15	ug/L		07/10/24 21:34	1
1,2-Dibromo-3-Chloropropane	4.0	U	5.0	4.0	0.42	ug/L		07/10/24 21:34	1
1,2,3-Trichloropropane	1.8	U	2.5	1.8	0.28	ug/L		07/10/24 21:34	1
Ethyl methacrylate	2.0	U	3.0	2.0	0.19	ug/L		07/10/24 21:34	1
tert-Butylbenzene	0.80	U	1.0	0.80	0.18	ug/L		07/10/24 21:34	1
Isopropylbenzene	0.50	U	1.0	0.50	0.16	ug/L		07/10/24 21:34	1
4-Isopropyltoluene	0.80	U	1.0	0.80	0.19	ug/L		07/10/24 21:34	1
1,2-Dichloroethene, Total	0.40	U	1.0	0.40	0.32	ug/L		07/10/24 21:34	1
1,3-Dichloropropene, Total	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 21:34	1
Trihalomethanes, Total	0.50	U	1.0	0.50	0.19	ug/L		07/10/24 21:34	1
Total BTEX	0.40	U	1.0	0.40	0.14	ug/L		07/10/24 21:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		81 - 118		07/10/24 21:34	1
Dibromofluoromethane (Surr)	104		80 - 119		07/10/24 21:34	1
Toluene-d8 (Surr)	99		89 - 112		07/10/24 21:34	1
4-Bromofluorobenzene (Surr)	97		85 - 114		07/10/24 21:34	1

Lab Sample ID: LCS 280-659975/4
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	50.0	50.5		ug/L		101	79 - 121
Styrene	50.0	53.1		ug/L		106	78 - 123

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-659975/4
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,3-Dichloropropene	50.0	49.2		ug/L		98	75 - 124
trans-1,3-Dichloropropene	50.0	49.9		ug/L		100	73 - 127
N-Propylbenzene	50.0	53.9		ug/L		108	76 - 126
n-Butylbenzene	50.0	53.3		ug/L		107	75 - 128
4-Chlorotoluene	50.0	51.3		ug/L		103	78 - 122
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Ethylene Dibromide	50.0	49.1		ug/L		98	77 - 121
3-Chloro-1-propene	50.0	45.4		ug/L		91	68 - 130
1,2-Dichloroethane	50.0	47.8		ug/L		96	73 - 128
Acrylonitrile	500	454		ug/L		91	63 - 135
Vinyl acetate	100	102		ug/L		102	54 - 146
4-Methyl-2-pentanone (MIBK)	200	192		ug/L		96	67 - 130
1,3,5-Trimethylbenzene	50.0	53.6		ug/L		107	75 - 124
Bromobenzene	50.0	50.8		ug/L		102	80 - 120
Methylcyclohexane	50.0	49.7		ug/L		99	72 - 132
Toluene	50.0	49.4		ug/L		99	80 - 121
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118
Tetrahydrofuran	100	88.3		ug/L		88	57 - 133
Hexane	50.0	45.1		ug/L		90	48 - 143
trans-1,4-Dichloro-2-butene	50.0	46.0		ug/L		92	43 - 140
Cyclohexane	50.0	50.8		ug/L		102	71 - 130
1,2,4-Trichlorobenzene	50.0	47.8		ug/L		96	69 - 130
Chlorodibromomethane	50.0	49.7		ug/L		99	74 - 126
Tetrachloroethene	50.0	50.4		ug/L		101	74 - 129
sec-Butylbenzene	50.0	52.8		ug/L		106	77 - 126
1,3-Dichloropropane	50.0	47.5		ug/L		95	80 - 119
cis-1,2-Dichloroethene	50.0	49.7		ug/L		99	78 - 123
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	75 - 124
Methyl tert-butyl ether	50.0	47.4		ug/L		95	71 - 124
m-Xylene & p-Xylene	50.0	51.3		ug/L		103	80 - 121
1,3-Dichlorobenzene	50.0	51.8		ug/L		104	80 - 119
Carbon tetrachloride	50.0	53.8		ug/L		108	72 - 136
1,1-Dichloropropene	50.0	51.9		ug/L		104	79 - 125
2-Hexanone	200	193		ug/L		97	57 - 139
2,2-Dichloropropane	50.0	52.4		ug/L		105	60 - 139
Ethyl ether	50.0	45.8		ug/L		92	68 - 129
1,1,1,2-Tetrachloroethane	50.0	52.1		ug/L		104	78 - 124
Acetone	200	179		ug/L		89	39 - 160
Chloroform	50.0	50.9		ug/L		102	79 - 124
Benzene	50.0	49.9		ug/L		100	79 - 120
1,1,1-Trichloroethane	50.0	51.7		ug/L		103	74 - 131
Bromomethane	50.0	35.2		ug/L		70	53 - 141
Chloromethane	50.0	44.0		ug/L		88	50 - 139
Iodomethane	50.0	38.9		ug/L		78	69 - 131
Dibromomethane	50.0	49.3		ug/L		99	79 - 123
Chlorobromomethane	50.0	51.2		ug/L		102	78 - 123
Chloroethane	50.0	49.8		ug/L		100	60 - 138
Vinyl chloride	50.0	48.7		ug/L		97	58 - 137
Methylene Chloride	50.0	51.7		ug/L		103	74 - 124

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-659975/4
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon disulfide	50.0	50.1		ug/L		100	64 - 133
Bromoform	50.0	49.0		ug/L		98	66 - 130
Dichlorobromomethane	50.0	51.0		ug/L		102	79 - 125
1,1-Dichloroethane	50.0	49.6		ug/L		99	77 - 125
1,1-Dichloroethene	50.0	49.6		ug/L		99	71 - 131
Trichlorofluoromethane	50.0	50.7		ug/L		101	65 - 141
Dichlorodifluoromethane	50.0	53.4		ug/L		107	32 - 152
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.4		ug/L		103	70 - 136
1,2-Dichloropropane	50.0	50.0		ug/L		100	78 - 122
2-Butanone (MEK)	200	178		ug/L		89	56 - 143
1,1,2-Trichloroethane	50.0	49.1		ug/L		98	80 - 119
Trichloroethene	50.0	49.9		ug/L		100	79 - 123
Methyl acetate	100	83.0		ug/L		83	56 - 136
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	71 - 121
1,2,3-Trichlorobenzene	50.0	41.2		ug/L		82	69 - 129
Hexachlorobutadiene	50.0	52.7		ug/L		105	66 - 134
Naphthalene	50.0	43.4		ug/L		87	61 - 128
o-Xylene	50.0	52.2		ug/L		104	78 - 122
2-Chlorotoluene	50.0	51.0		ug/L		102	79 - 122
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,2,4-Trimethylbenzene	50.0	51.8		ug/L		104	76 - 124
1,2-Dibromo-3-Chloropropane	50.0	46.7		ug/L		93	62 - 128
1,2,3-Trichloropropane	50.0	48.9		ug/L		98	73 - 122
Ethyl methacrylate	50.0	50.0		ug/L		100	72 - 126
tert-Butylbenzene	50.0	52.1		ug/L		104	78 - 124
Isopropylbenzene	50.0	53.2		ug/L		106	72 - 131
4-Isopropyltoluene	50.0	52.6		ug/L		105	77 - 127
1,2-Dichloroethene, Total	100	101		ug/L		101	79 - 121
1,3-Dichloropropene, Total	100	99.1		ug/L		99	77 - 123
Trihalomethanes, Total	200	201		ug/L		100	66 - 130
Total BTEX	250	253		ug/L		101	78 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		81 - 118
Dibromofluoromethane (Surr)	99		80 - 119
Toluene-d8 (Surr)	98		89 - 112
4-Bromofluorobenzene (Surr)	102		85 - 114

Lab Sample ID: LCSD 280-659975/5
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	50.0	52.0		ug/L		104	79 - 121	3	20
Styrene	50.0	53.5		ug/L		107	78 - 123	1	20
cis-1,3-Dichloropropene	50.0	51.1		ug/L		102	75 - 124	4	20
trans-1,3-Dichloropropene	50.0	51.5		ug/L		103	73 - 127	3	20
N-Propylbenzene	50.0	52.0		ug/L		104	76 - 126	4	20

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QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-659975/5
Matrix: Water
Analysis Batch: 659975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
n-Butylbenzene	50.0	52.1		ug/L		104	75 - 128	2	20
4-Chlorotoluene	50.0	51.5		ug/L		103	78 - 122	0	20
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	79 - 118	1	20
Ethylene Dibromide	50.0	51.1		ug/L		102	77 - 121	4	20
3-Chloro-1-propene	50.0	45.7		ug/L		91	68 - 130	1	20
1,2-Dichloroethane	50.0	45.5		ug/L		91	73 - 128	5	20
Acrylonitrile	500	468		ug/L		94	63 - 135	3	20
Vinyl acetate	100	96.6		ug/L		97	54 - 146	5	20
4-Methyl-2-pentanone (MIBK)	200	203		ug/L		102	67 - 130	6	20
1,3,5-Trimethylbenzene	50.0	52.3		ug/L		105	75 - 124	3	20
Bromobenzene	50.0	49.7		ug/L		99	80 - 120	2	20
Methylcyclohexane	50.0	49.6		ug/L		99	72 - 132	0	20
Toluene	50.0	49.1		ug/L		98	80 - 121	0	20
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118	0	20
Tetrahydrofuran	100	94.2		ug/L		94	57 - 133	6	20
Hexane	50.0	46.2		ug/L		92	48 - 143	2	20
trans-1,4-Dichloro-2-butene	50.0	45.9		ug/L		92	43 - 140	0	20
Cyclohexane	50.0	51.2		ug/L		102	71 - 130	1	20
1,2,4-Trichlorobenzene	50.0	47.6		ug/L		95	69 - 130	1	20
Chlorodibromomethane	50.0	51.1		ug/L		102	74 - 126	3	20
Tetrachloroethene	50.0	51.1		ug/L		102	74 - 129	1	20
sec-Butylbenzene	50.0	53.0		ug/L		106	77 - 126	0	20
1,3-Dichloropropane	50.0	48.5		ug/L		97	80 - 119	2	20
cis-1,2-Dichloroethene	50.0	48.8		ug/L		98	78 - 123	2	20
trans-1,2-Dichloroethene	50.0	50.6		ug/L		101	75 - 124	1	20
Methyl tert-butyl ether	50.0	49.5		ug/L		99	71 - 124	4	20
m-Xylene & p-Xylene	50.0	51.4		ug/L		103	80 - 121	0	20
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 119	2	20
Carbon tetrachloride	50.0	53.7		ug/L		107	72 - 136	0	20
1,1-Dichloropropene	50.0	51.3		ug/L		103	79 - 125	1	20
2-Hexanone	200	206		ug/L		103	57 - 139	7	20
2,2-Dichloropropane	50.0	53.3		ug/L		107	60 - 139	2	20
Ethyl ether	50.0	45.7		ug/L		91	68 - 129	0	20
1,1,1,2-Tetrachloroethane	50.0	53.7		ug/L		107	78 - 124	3	20
Acetone	200	191		ug/L		95	39 - 160	7	20
Chloroform	50.0	50.1		ug/L		100	79 - 124	2	20
Benzene	50.0	49.4		ug/L		99	79 - 120	1	20
1,1,1-Trichloroethane	50.0	52.1		ug/L		104	74 - 131	1	20
Bromomethane	50.0	40.5		ug/L		81	53 - 141	14	20
Chloromethane	50.0	44.0		ug/L		88	50 - 139	0	20
Iodomethane	50.0	44.4		ug/L		89	69 - 131	13	20
Dibromomethane	50.0	49.7		ug/L		99	79 - 123	1	20
Chlorobromomethane	50.0	50.6		ug/L		101	78 - 123	1	20
Chloroethane	50.0	49.1		ug/L		98	60 - 138	1	20
Vinyl chloride	50.0	47.6		ug/L		95	58 - 137	2	20
Methylene Chloride	50.0	52.5		ug/L		105	74 - 124	1	20
Carbon disulfide	50.0	49.0		ug/L		98	64 - 133	2	20
Bromoform	50.0	51.8		ug/L		104	66 - 130	5	20
Dichlorobromomethane	50.0	50.7		ug/L		101	79 - 125	1	20

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-659975/5
 Matrix: Water
 Analysis Batch: 659975

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	49.2		ug/L		98	77 - 125	1	20
1,1-Dichloroethene	50.0	49.4		ug/L		99	71 - 131	0	20
Trichlorofluoromethane	50.0	53.5		ug/L		107	65 - 141	5	20
Dichlorodifluoromethane	50.0	53.1		ug/L		106	32 - 152	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.4		ug/L		101	70 - 136	2	20
1,2-Dichloropropane	50.0	50.3		ug/L		101	78 - 122	1	20
2-Butanone (MEK)	200	189		ug/L		94	56 - 143	6	20
1,1,2-Trichloroethane	50.0	50.8		ug/L		102	80 - 119	3	20
Trichloroethene	50.0	49.6		ug/L		99	79 - 123	0	20
Methyl acetate	100	87.3		ug/L		87	56 - 136	5	20
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/L		96	71 - 121	2	20
1,2,3-Trichlorobenzene	50.0	43.7		ug/L		87	69 - 129	6	20
Hexachlorobutadiene	50.0	50.2		ug/L		100	66 - 134	5	20
Naphthalene	50.0	45.8		ug/L		92	61 - 128	5	20
o-Xylene	50.0	52.9		ug/L		106	78 - 122	1	20
2-Chlorotoluene	50.0	51.1		ug/L		102	79 - 122	0	20
1,2-Dichlorobenzene	50.0	51.9		ug/L		104	80 - 119	1	20
1,2,4-Trimethylbenzene	50.0	51.7		ug/L		103	76 - 124	0	20
1,2-Dibromo-3-Chloropropane	50.0	48.6		ug/L		97	62 - 128	4	20
1,2,3-Trichloropropane	50.0	49.2		ug/L		98	73 - 122	1	20
Ethyl methacrylate	50.0	53.1		ug/L		106	72 - 126	6	20
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124	2	20
Isopropylbenzene	50.0	52.1		ug/L		104	72 - 131	2	20
4-Isopropyltoluene	50.0	51.4		ug/L		103	77 - 127	2	20
1,2-Dichloroethene, Total	100	99.4		ug/L		99	79 - 121	1	20
1,3-Dichloropropene, Total	100	103		ug/L		103	77 - 123	3	20
Trihalomethanes, Total	200	204		ug/L		102	66 - 130	2	20
Total BTEX	250	255		ug/L		102	78 - 122	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		81 - 118
Dibromofluoromethane (Surr)	100		80 - 119
Toluene-d8 (Surr)	100		89 - 112
4-Bromofluorobenzene (Surr)	100		85 - 114

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-659338/1-A
 Matrix: Water
 Analysis Batch: 659523

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 659338

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1'-Biphenyl	8.0	U	10	8.0	1.2	ug/L		07/08/24 10:32	1
2,4-Dichlorophenol	8.0	U	10	8.0	3.0	ug/L		07/08/24 10:32	1
2,4-Dimethylphenol	8.0	U	10	8.0	1.4	ug/L		07/08/24 10:32	1
2,4-Dinitrophenol	20	U	30	20	13	ug/L		07/08/24 10:32	1
2,4-Dinitrotoluene	8.0	U	10	8.0	1.4	ug/L		07/08/24 10:32	1
2,4,6-Trichlorophenol	8.0	U	10	8.0	2.3	ug/L		07/08/24 10:32	1

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QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-659338/1-A

Matrix: Water

Analysis Batch: 659523

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 659338

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4,5-Trichlorophenol	8.0	U	10	8.0	2.6	ug/L		07/08/24 10:32	1
2,2'-oxybis[1-chloropropane]	8.0	U	10	8.0	1.3	ug/L		07/08/24 10:32	1
Di-n-butyl phthalate	3.2	U	4.0	3.2	2.1	ug/L		07/08/24 10:32	1
Di-n-octyl phthalate	8.0	U M	10	8.0	3.6	ug/L		07/08/24 10:32	1
Benzo[a]anthracene	3.2	U	4.0	3.2	0.96	ug/L		07/08/24 10:32	1
Benzo[a]pyrene	3.2	U	4.0	3.2	0.50	ug/L		07/08/24 10:32	1
Benzo[b]fluoranthene	3.2	U	4.0	3.2	2.2	ug/L		07/08/24 10:32	1
Benzo[g,h,i]perylene	3.2	U	4.0	3.2	2.8	ug/L		07/08/24 10:32	1
Benzo[k]fluoranthene	3.2	U	4.0	3.2	1.1	ug/L		07/08/24 10:32	1
Acenaphthene	3.2	U	4.0	3.2	0.96	ug/L		07/08/24 10:32	1
Acenaphthylene	3.2	U	4.0	3.2	0.75	ug/L		07/08/24 10:32	1
Acetophenone	8.0	U	10	8.0	2.3	ug/L		07/08/24 10:32	1
Anthracene	3.2	U	4.0	3.2	0.58	ug/L		07/08/24 10:32	1
Atrazine	3.2	U	10	3.2	0.65	ug/L		07/08/24 10:32	1
Benzaldehyde	3.2	U	5.0	3.2	1.2	ug/L		07/08/24 10:32	1
Butyl benzyl phthalate	3.2	U	4.0	3.2	1.5	ug/L		07/08/24 10:32	1
Caprolactam	10	U	15	10	5.5	ug/L		07/08/24 10:32	1
Chrysene	3.2	U	4.0	3.2	0.97	ug/L		07/08/24 10:32	1
Dibenz(a,h)anthracene	8.0	U	10	8.0	4.8	ug/L		07/08/24 10:32	1
Dibenzofuran	3.2	U	4.0	3.2	0.95	ug/L		07/08/24 10:32	1
Diethyl phthalate	3.2	U	4.0	3.2	1.4	ug/L		07/08/24 10:32	1
Hexachlorobenzene	8.0	U	10	8.0	2.3	ug/L		07/08/24 10:32	1
Hexachlorocyclopentadiene	48	U	50	48	16	ug/L		07/08/24 10:32	1
Hexachlorobutadiene	8.0	U	10	8.0	2.9	ug/L		07/08/24 10:32	1
Hexachloroethane	8.0	U	10	8.0	4.5	ug/L		07/08/24 10:32	1
Fluoranthene	3.2	U	4.0	3.2	1.1	ug/L		07/08/24 10:32	1
Fluorene	3.2	U	4.0	3.2	0.78	ug/L		07/08/24 10:32	1
Indeno[1,2,3-cd]pyrene	8.0	U	10	8.0	3.4	ug/L		07/08/24 10:32	1
Isophorone	8.0	U	10	8.0	2.0	ug/L		07/08/24 10:32	1
N-Nitrosodi-n-propylamine	8.0	U M	10	8.0	1.9	ug/L		07/08/24 10:32	1
N-Nitrosodiphenylamine	8.0	U	10	8.0	1.8	ug/L		07/08/24 10:32	1
Naphthalene	3.2	U	4.0	3.2	1.5	ug/L		07/08/24 10:32	1
Nitrobenzene	8.0	U	10	8.0	1.3	ug/L		07/08/24 10:32	1
Pentachlorophenol	48	U	50	48	20	ug/L		07/08/24 10:32	1
Phenanthrene	3.2	U	4.0	3.2	1.6	ug/L		07/08/24 10:32	1
Phenol	8.0	U	10	8.0	0.92	ug/L		07/08/24 10:32	1
Pyrene	8.0	U M	10	8.0	2.4	ug/L		07/08/24 10:32	1
2-Chloronaphthalene	3.2	U	4.0	3.2	1.3	ug/L		07/08/24 10:32	1
2-Chlorophenol	8.0	U	10	8.0	2.6	ug/L		07/08/24 10:32	1
2-Methylnaphthalene	3.2	U	4.0	3.2	1.2	ug/L		07/08/24 10:32	1
2-Methylphenol	8.0	U	10	8.0	0.77	ug/L		07/08/24 10:32	1
2-Nitroaniline	3.2	U	10	3.2	2.6	ug/L		07/08/24 10:32	1
2-Nitrophenol	8.0	U	10	8.0	3.5	ug/L		07/08/24 10:32	1
3,3'-Dichlorobenzidine	30	U	50	30	3.4	ug/L		07/08/24 10:32	1
3-Nitroaniline	8.0	U M	10	8.0	3.3	ug/L		07/08/24 10:32	1
4,6-Dinitro-2-methylphenol	30	U	50	30	4.0	ug/L		07/08/24 10:32	1
4-Bromophenyl phenyl ether	8.0	U	10	8.0	1.0	ug/L		07/08/24 10:32	1
4-Nitroaniline	8.0	U	10	8.0	2.6	ug/L		07/08/24 10:32	1
4-Nitrophenol	13	U	25	13	9.1	ug/L		07/08/24 10:32	1

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-659338/1-A
Matrix: Water
Analysis Batch: 659523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659338

Analyte	MB	MB	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-chloroethoxy)methane	8.0	U	10	8.0	2.4	ug/L		07/08/24 10:32	1
Bis(2-chloroethyl)ether	8.0	U	10	8.0	2.0	ug/L		07/08/24 10:32	1
Bis(2-ethylhexyl) phthalate	8.0	U	10	8.0	3.3	ug/L		07/08/24 10:32	1
2,6-Dinitrotoluene	8.0	U M	10	8.0	1.4	ug/L		07/08/24 10:32	1
4-Chloro-3-methylphenol	8.0	U	10	8.0	1.7	ug/L		07/08/24 10:32	1
4-Chloroaniline	13	U	20	13	6.3	ug/L		07/08/24 10:32	1
4-Chlorophenyl phenyl ether	8.0	U	10	8.0	1.2	ug/L		07/08/24 10:32	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol (Surr)	26		19 - 119	07/04/24 12:12	07/08/24 10:32	1
Phenol-d5 (Surr)	18		10 - 115	07/04/24 12:12	07/08/24 10:32	1
Nitrobenzene-d5 (Surr)	60		44 - 120	07/04/24 12:12	07/08/24 10:32	1
2-Fluorobiphenyl	45		44 - 119	07/04/24 12:12	07/08/24 10:32	1
2,4,6-Tribromophenol (Surr)	54		43 - 140	07/04/24 12:12	07/08/24 10:32	1
Terphenyl-d14 (Surr)	109		50 - 134	07/04/24 12:12	07/08/24 10:32	1

Lab Sample ID: LCS 280-659338/2-A
Matrix: Water
Analysis Batch: 659523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659338

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
1,1'-Biphenyl	80.0	40.7		ug/L		51		49 - 115
2,4-Dichlorophenol	80.0	45.3		ug/L		57		47 - 121
2,4-Dimethylphenol	80.0	37.5		ug/L		47		31 - 124
2,4-Dinitrophenol	160	147		ug/L		92		23 - 143
2,4-Dinitrotoluene	80.0	76.4		ug/L		96		57 - 128
2,4,6-Trichlorophenol	80.0	46.5		ug/L		58		50 - 125
2,4,5-Trichlorophenol	80.0	47.1		ug/L		59		53 - 123
2,2'-oxybis[1-chloropropane]	80.0	61.9		ug/L		77		32 - 120
Di-n-butyl phthalate	80.0	99.5		ug/L		124		59 - 127
Di-n-octyl phthalate	80.0	103	M	ug/L		129		51 - 140
Benzo[a]anthracene	80.0	95.0		ug/L		119		58 - 125
Benzo[a]pyrene	80.0	88.2		ug/L		110		54 - 128
Benzo[b]fluoranthene	80.0	89.1		ug/L		111		53 - 131
Benzo[g,h,i]perylene	80.0	112	Q	ug/L		140		50 - 134
Benzo[k]fluoranthene	80.0	88.2		ug/L		110		57 - 129
Acenaphthene	80.0	45.3		ug/L		57		47 - 122
Acenaphthylene	80.0	44.4		ug/L		56		41 - 130
Acetophenone	80.0	52.0		ug/L		65		46 - 118
Anthracene	80.0	74.4		ug/L		93		57 - 123
Atrazine	80.0	100		ug/L		125		44 - 142
Benzaldehyde	80.0	56.5		ug/L		71		12 - 120
Butyl benzyl phthalate	80.0	113	Q	ug/L		142		53 - 134
Caprolactam	80.0	23.4		ug/L		29		10 - 120
Chrysene	80.0	94.3		ug/L		118		59 - 123
Dibenz(a,h)anthracene	80.0	111	M Q	ug/L		139		51 - 134
Dibenzofuran	80.0	46.1		ug/L		58		53 - 118
Diethyl phthalate	80.0	77.4		ug/L		97		56 - 125

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-659338/2-A
Matrix: Water
Analysis Batch: 659523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659338

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	80.0	60.2		ug/L		75	53 - 125
Hexachlorocyclopentadiene	160	54.2		ug/L		34	10 - 120
Hexachlorobutadiene	80.0	30.1		ug/L		38	22 - 124
Hexachloroethane	80.0	30.1		ug/L		38	21 - 115
Fluoranthene	80.0	87.5		ug/L		109	57 - 128
Fluorene	80.0	50.4		ug/L		63	52 - 124
Indeno[1,2,3-cd]pyrene	80.0	107		ug/L		133	52 - 134
Isophorone	80.0	57.5		ug/L		72	42 - 124
N-Nitrosodi-n-propylamine	80.0	56.1		ug/L		70	49 - 119
N-Nitrosodiphenylamine	80.0	63.5		ug/L		79	51 - 123
Naphthalene	80.0	42.0		ug/L		53	40 - 121
Nitrobenzene	80.0	44.2		ug/L		55	45 - 121
Pentachlorophenol	160	132		ug/L		83	35 - 138
Phenanthrene	80.0	73.1		ug/L		91	59 - 120
Phenol	80.0	22.7		ug/L		28	28 - 120
Pyrene	80.0	90.4		ug/L		113	57 - 126
2-Chloronaphthalene	80.0	39.9		ug/L		50	40 - 116
2-Chlorophenol	80.0	45.1		ug/L		56	38 - 117
2-Methylnaphthalene	80.0	39.4		ug/L		49	40 - 121
2-Methylphenol	80.0	42.3		ug/L		53	30 - 117
2-Nitroaniline	80.0	58.6		ug/L		73	55 - 127
2-Nitrophenol	80.0	47.7		ug/L		60	47 - 123
3,3'-Dichlorobenzidine	160	166		ug/L		104	27 - 129
3-Nitroaniline	80.0	82.7		ug/L		103	41 - 128
4,6-Dinitro-2-methylphenol	160	183		ug/L		114	44 - 137
4-Bromophenyl phenyl ether	80.0	54.4		ug/L		68	55 - 124
4-Nitroaniline	80.0	77.3		ug/L		97	49 - 122
4-Nitrophenol	160	101		ug/L		63	31 - 120
Bis(2-chloroethoxy)methane	80.0	53.5		ug/L		67	48 - 120
Bis(2-chloroethyl)ether	80.0	49.4		ug/L		62	43 - 118
Bis(2-ethylhexyl) phthalate	80.0	112	Q	ug/L		139	55 - 135
2,6-Dinitrotoluene	80.0	62.0		ug/L		77	57 - 124
4-Chloro-3-methylphenol	80.0	56.5		ug/L		71	52 - 119
4-Chloroaniline	80.0	40.8		ug/L		51	33 - 117
4-Chlorophenyl phenyl ether	80.0	45.7		ug/L		57	53 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	37		19 - 119
Phenol-d5 (Surr)	27		10 - 115
Nitrobenzene-d5 (Surr)	71		44 - 120
2-Fluorobiphenyl	48		44 - 119
2,4,6-Tribromophenol (Surr)	78		43 - 140
Terphenyl-d14 (Surr)	116		50 - 134

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 280-658886/1-A
Matrix: Water
Analysis Batch: 658921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658886

Analyte	MB MB		LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Ethylene Dibromide	0.014	U	0.020	0.014	0.0037	ug/L		07/01/24 13:04	1
Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac			
%Recovery	Qualifier								
1,2-Dibromopropane	115		70 - 130	07/01/24 08:37	07/01/24 13:04	1			

Lab Sample ID: LCS 280-658886/2-A
Matrix: Water
Analysis Batch: 658921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Surrogate	LCS LCS		Limits				
%Recovery	Qualifier						
1,2-Dibromopropane	109		70 - 130				

Lab Sample ID: LCSD 280-658886/3-A
Matrix: Water
Analysis Batch: 658921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 658886

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Surrogate	LCSD LCSD		Limits						
%Recovery	Qualifier								
1,2-Dibromopropane	114		70 - 130						

Lab Sample ID: MB 280-659019/1-A
Matrix: Water
Analysis Batch: 659039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659019

Analyte	MB MB		LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Ethylene Dibromide	0.014	U	0.020	0.014	0.0037	ug/L		07/02/24 13:26	1
Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac			
%Recovery	Qualifier								
1,2-Dibromopropane	112		70 - 130	07/02/24 08:03	07/02/24 13:26	1			

Lab Sample ID: LCS 280-659019/2-A
Matrix: Water
Analysis Batch: 659039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Surrogate	LCS LCS		Limits				
%Recovery	Qualifier						
1,2-Dibromopropane	114		70 - 130				

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

Lab Sample ID: LCSD 280-659019/3-A
Matrix: Water
Analysis Batch: 659039

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 659019

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylene Dibromide	0.250	0.253		ug/L		101	70 - 130	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dibromopropane	119		70 - 130

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-659532/1-A
Matrix: Water
Analysis Batch: 660338

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659532

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	64	U	200	64	24	ug/L		07/12/24 13:52	1
Magnesium	15	U	200	15	4.2	ug/L		07/12/24 13:52	1
Potassium	940	U	3000	940	240	ug/L		07/12/24 13:52	1
Sodium	320	U	1000	320	97	ug/L		07/12/24 13:52	1

Lab Sample ID: LCS 280-659532/2-A
Matrix: Water
Analysis Batch: 660338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	50000	50700		ug/L		101	87 - 113
Magnesium	50000	51200		ug/L		102	85 - 113
Potassium	50000	52500		ug/L		105	86 - 114
Sodium	50000	53700		ug/L		107	87 - 115

Lab Sample ID: LCSD 280-659532/3-A
Matrix: Water
Analysis Batch: 660338

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 659532

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	50000	49800		ug/L		100	87 - 113	2	20
Magnesium	50000	50400		ug/L		101	85 - 113	2	20
Potassium	50000	51600		ug/L		103	86 - 114	2	20
Sodium	50000	52800		ug/L		106	87 - 115	2	20

Lab Sample ID: MB 280-659126/1-B
Matrix: Water
Analysis Batch: 659533

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 659208

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	34	U	100	34	9.1	ug/L		07/05/24 18:48	1
Manganese	1.8	U	10	1.8	0.45	ug/L		07/05/24 18:48	1

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-659126/2-B
 Matrix: Water
 Analysis Batch: 659533

Client Sample ID: Lab Control Sample
 Prep Type: Dissolved
 Prep Batch: 659208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	10100		ug/L		101	87 - 115
Manganese	1000	974		ug/L		97	90 - 114

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-659532/1-A
 Matrix: Water
 Analysis Batch: 659937

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 659532

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.0	U	5.0	2.0	0.50	ug/L		07/10/24 11:29	1
Lead	0.70	U	1.0	0.70	0.23	ug/L		07/10/24 11:29	1

Lab Sample ID: LCS 280-659532/26-A
 Matrix: Water
 Analysis Batch: 659937

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 659532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	41.5		ug/L		104	84 - 116
Lead	40.0	38.7		ug/L		97	88 - 115

Lab Sample ID: LCSD 280-659532/27-A
 Matrix: Water
 Analysis Batch: 659937

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 659532

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	40.0	41.0		ug/L		103	84 - 116	1	20
Lead	40.0	38.5		ug/L		96	88 - 115	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-659089/6
 Matrix: Water
 Analysis Batch: 659089

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bromide	0.40	U M	0.50	0.40	0.23	mg/L		07/02/24 13:05	1
Chloride	2.5	U M	3.0	2.5	1.0	mg/L		07/02/24 13:05	1
Sulfate	2.5	U M	5.0	2.5	1.0	mg/L		07/02/24 13:05	1

Lab Sample ID: LCS 280-659089/4
 Matrix: Water
 Analysis Batch: 659089

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.00	4.90		mg/L		98	90 - 110
Chloride	100	97.0		mg/L		97	90 - 110
Sulfate	100	96.1		mg/L		96	90 - 110

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-659089/5
 Matrix: Water
 Analysis Batch: 659089

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	5.00	4.86		mg/L		97	90 - 110	1	10
Chloride	100	97.3		mg/L		97	90 - 110	0	10
Sulfate	100	96.1		mg/L		96	90 - 110	0	10

Lab Sample ID: MRL 280-659089/3
 Matrix: Water
 Analysis Batch: 659089

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	0.500	0.509		mg/L		102	50 - 150
Chloride	5.00	4.62	M	mg/L		92	50 - 150
Sulfate	5.00	4.40	J M	mg/L		88	50 - 150

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-659627/20
 Matrix: Water
 Analysis Batch: 659627

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.080	U	0.10	0.080	0.044	mg/L		07/08/24 14:35	1

Lab Sample ID: LCS 280-659627/18
 Matrix: Water
 Analysis Batch: 659627

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	1.00	1.01		mg/L		101	90 - 110

Lab Sample ID: LCSD 280-659627/19
 Matrix: Water
 Analysis Batch: 659627

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	1.00	0.994		mg/L		99	90 - 110	2	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-659115/6
 Matrix: Water
 Analysis Batch: 659115

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	6.4	U	10	6.4	3.1	mg/L		07/02/24 11:48	1

QC Sample Results

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-659115/4
Matrix: Water
Analysis Batch: 659115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	200	191		mg/L		96	89 - 110

Lab Sample ID: LCSD 280-659115/5
Matrix: Water
Analysis Batch: 659115

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	200	189		mg/L		95	89 - 110	1	10

QC Association Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

GC/MS VOA

Analysis Batch: 659975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	8260D	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	8260D	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	8260D	
280-193472-4	Trip Blank	Total/NA	Water	8260D	
MB 280-659975/9	Method Blank	Total/NA	Water	8260D	
LCS 280-659975/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 280-659975/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 659338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	3510C	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	3510C	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	3510C	
MB 280-659338/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-659338/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 659523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	8270E	659338
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	8270E	659338
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	8270E	659338
MB 280-659338/1-A	Method Blank	Total/NA	Water	8270E	659338
LCS 280-659338/2-A	Lab Control Sample	Total/NA	Water	8270E	659338

GC Semi VOA

Prep Batch: 658886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	8011	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	8011	
MB 280-658886/1-A	Method Blank	Total/NA	Water	8011	
LCS 280-658886/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 280-658886/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 658921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	8011	658886
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	8011	658886
MB 280-658886/1-A	Method Blank	Total/NA	Water	8011	658886
LCS 280-658886/2-A	Lab Control Sample	Total/NA	Water	8011	658886
LCSD 280-658886/3-A	Lab Control Sample Dup	Total/NA	Water	8011	658886

Prep Batch: 659019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	8011	
MB 280-659019/1-A	Method Blank	Total/NA	Water	8011	
LCS 280-659019/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 280-659019/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

GC Semi VOA

Analysis Batch: 659039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	8011	659019
MB 280-659019/1-A	Method Blank	Total/NA	Water	8011	659019
LCS 280-659019/2-A	Lab Control Sample	Total/NA	Water	8011	659019
LCSD 280-659019/3-A	Lab Control Sample Dup	Total/NA	Water	8011	659019

Metals

Filtration Batch: 659126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Dissolved	Water	Filtration	
280-193472-2	WUABAF MW-01 (BP)	Dissolved	Water	Filtration	
280-193472-3	WUABAF MW-01 (Rinsate)	Dissolved	Water	Filtration	
MB 280-659126/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 280-659126/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 659208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Dissolved	Water	3005A	659126
280-193472-2	WUABAF MW-01 (BP)	Dissolved	Water	3005A	659126
280-193472-3	WUABAF MW-01 (Rinsate)	Dissolved	Water	3005A	659126
MB 280-659126/1-B	Method Blank	Dissolved	Water	3005A	659126
LCS 280-659126/2-B	Lab Control Sample	Dissolved	Water	3005A	659126

Prep Batch: 659532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	3020A	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	3020A	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	3020A	
MB 280-659532/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-659532/26-A	Lab Control Sample	Total/NA	Water	3020A	
LCS 280-659532/2-A	Lab Control Sample	Total/NA	Water	3020A	
LCSD 280-659532/27-A	Lab Control Sample Dup	Total/NA	Water	3020A	
LCSD 280-659532/3-A	Lab Control Sample Dup	Total/NA	Water	3020A	

Analysis Batch: 659533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Dissolved	Water	6010D	659208
280-193472-2	WUABAF MW-01 (BP)	Dissolved	Water	6010D	659208
280-193472-3	WUABAF MW-01 (Rinsate)	Dissolved	Water	6010D	659208
MB 280-659126/1-B	Method Blank	Dissolved	Water	6010D	659208
LCS 280-659126/2-B	Lab Control Sample	Dissolved	Water	6010D	659208

Analysis Batch: 659937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	6020B	659532
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	6020B	659532
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	6020B	659532
MB 280-659532/1-A	Method Blank	Total/NA	Water	6020B	659532
LCS 280-659532/26-A	Lab Control Sample	Total/NA	Water	6020B	659532
LCSD 280-659532/27-A	Lab Control Sample Dup	Total/NA	Water	6020B	659532

QC Association Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Metals

Analysis Batch: 660338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	6010D	659532
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	6010D	659532
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	6010D	659532
MB 280-659532/1-A	Method Blank	Total/NA	Water	6010D	659532
LCS 280-659532/2-A	Lab Control Sample	Total/NA	Water	6010D	659532
LCSD 280-659532/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	659532

General Chemistry

Analysis Batch: 659089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	300.0	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	300.0	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	300.0	
MB 280-659089/6	Method Blank	Total/NA	Water	300.0	
LCS 280-659089/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-659089/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-659089/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 659115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	SM 2320B	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	SM 2320B	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	SM 2320B	
MB 280-659115/6	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-659115/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-659115/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 659627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-193472-1	WUABAF MW-01 (PDB)	Total/NA	Water	353.2	
280-193472-2	WUABAF MW-01 (BP)	Total/NA	Water	353.2	
280-193472-3	WUABAF MW-01 (Rinsate)	Total/NA	Water	353.2	
MB 280-659627/20	Method Blank	Total/NA	Water	353.2	
LCS 280-659627/18	Lab Control Sample	Total/NA	Water	353.2	
LCSD 280-659627/19	Lab Control Sample Dup	Total/NA	Water	353.2	

Lab Chronicle

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (PDB)

Lab Sample ID: 280-193472-1

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	659975	07/11/24 02:52	BMJ	EET DEN
Total/NA	Prep	3510C			239.8 mL	1 mL	659338	07/04/24 12:12	EDW	EET DEN
Total/NA	Analysis	8270E		1			659523	07/08/24 11:17	MAB	EET DEN
Total/NA	Prep	8011			34.9 mL	35 mL	659019	07/02/24 08:03	LKB	EET DEN
Total/NA	Analysis	8011		1	35 mL	35 mL	659039	07/02/24 14:46	LKB	EET DEN
Dissolved	Filtration	Filtration			1.0 mL	1.0 mL	659126	07/03/24 11:18	AES	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	659208	07/03/24 18:46	AES	EET DEN
Dissolved	Analysis	6010D		1			659533	07/05/24 20:15	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6010D		1			660338	07/12/24 14:27	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6020B		1			659937	07/10/24 11:44	LMT	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	659089	07/02/24 17:37	EJS	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	659627	07/08/24 15:21	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			659115	07/02/24 13:37	EL	EET DEN

Client Sample ID: WUABAF MW-01 (BP)

Lab Sample ID: 280-193472-2

Date Collected: 06/27/24 14:59

Matrix: Water

Date Received: 06/29/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	659975	07/11/24 03:13	BMJ	EET DEN
Total/NA	Prep	3510C			255.1 mL	1 mL	659338	07/04/24 12:12	EDW	EET DEN
Total/NA	Analysis	8270E		1			659523	07/08/24 11:39	MAB	EET DEN
Total/NA	Prep	8011			35.2 mL	35 mL	658886	07/01/24 08:37	LKB	EET DEN
Total/NA	Analysis	8011		1	35 mL	35 mL	658921	07/01/24 19:47	LKB	EET DEN
Dissolved	Filtration	Filtration			1.0 mL	1.0 mL	659126	07/03/24 11:18	AES	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	659208	07/03/24 18:46	AES	EET DEN
Dissolved	Analysis	6010D		1			659533	07/05/24 20:19	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6010D		1			660338	07/12/24 14:31	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6020B		1			659937	07/10/24 11:47	LMT	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	659089	07/02/24 17:48	EJS	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	659627	07/08/24 15:23	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			659115	07/02/24 13:43	EL	EET DEN

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	659975	07/11/24 00:22	BMJ	EET DEN

Lab Chronicle

Client: John Shomaker and Associates Inc
 Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Client Sample ID: WUABAF MW-01 (Rinsate)

Lab Sample ID: 280-193472-3

Date Collected: 06/27/24 16:05

Matrix: Water

Date Received: 06/29/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			248.1 mL	1 mL	659338	07/04/24 12:12	EDW	EET DEN
Total/NA	Analysis	8270E		1			659523	07/08/24 12:01	MAB	EET DEN
Total/NA	Prep	8011			35.3 mL	35 mL	658886	07/01/24 08:37	LKB	EET DEN
Total/NA	Analysis	8011		1	35 mL	35 mL	658921	07/01/24 20:14	LKB	EET DEN
Dissolved	Filtration	Filtration			1.0 mL	1.0 mL	659126	07/03/24 11:18	AES	EET DEN
Dissolved	Prep	3005A			50 mL	50 mL	659208	07/03/24 18:46	AES	EET DEN
Dissolved	Analysis	6010D		1			659533	07/05/24 20:23	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6010D		1			660338	07/12/24 14:35	ADL	EET DEN
Total/NA	Prep	3020A			50 mL	50 mL	659532	07/09/24 09:05	AES	EET DEN
Total/NA	Analysis	6020B		1			659937	07/10/24 11:49	LMT	EET DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	659089	07/02/24 17:26	EJS	EET DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	659627	07/08/24 15:25	BCR	EET DEN
Total/NA	Analysis	SM 2320B		1			659115	07/02/24 13:49	EL	EET DEN

Client Sample ID: Trip Blank

Lab Sample ID: 280-193472-4

Date Collected: 06/27/24 09:53

Matrix: Water

Date Received: 06/29/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	659975	07/10/24 22:57	BMJ	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-25
The following analytes are included in this report, but the laboratory is not certified by A2LA Dept. of Defense ELAP 2907.01. This list may include analytes for which the agency does not offer certification:			
Analysis Method	Prep Method	Matrix	Analyte
8260D		Water	Total BTEX
8260D		Water	Trihalomethanes, Total

Method Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET DEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	EET DEN
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
300.0	Anions, Ion Chromatography	EPA	EET DEN
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET DEN
3010A	Preparation, Total Metals	SW846	EET DEN
3020A	Preparation, Total Metals	SW846	EET DEN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET DEN
5030B	Purge and Trap	SW846	EET DEN
8011	Microextraction	SW846	EET DEN
Filtration	Sample Filtration	None	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: John Shomaker and Associates Inc
Project/Site: Water Authority Data Gap Well Monitoring

Job ID: 280-193472-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-193472-1	WUABAF MW-01 (PDB)	Water	06/27/24 09:53	06/29/24 09:45
280-193472-2	WUABAF MW-01 (BP)	Water	06/27/24 14:59	06/29/24 09:45
280-193472-3	WUABAF MW-01 (Rinsate)	Water	06/27/24 16:05	06/29/24 09:45
280-193472-4	Trip Blank	Water	06/27/24 09:53	06/29/24 09:45